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Evaluation of a Training Programme for Foster Carers

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Abstract

This thesis evaluates the effect of a training programme for foster carers on the emotional and behavioural functioning of children in foster care and on the rate of breakdown of placements, in a pragmatic single-blind randomised controlled trial.

One hundred and eighty-two children in foster care aged 5 to 16, being looked after by 121 foster families, were recruited from 17 local authorities with a recruitment rate of 42% and a study completion rate of 82%. Their social class and placement breakdown rate were similar to those who did not participate.

Foster families were randomly allocated either extra training or standard services. Before and nine-months after the training programme carers, teachers and children completed the Strengths and Difficulties Questionnaire (SDQ), foster carers completed the Reactive Attachment Disorder Scale (RAD) and children completed the Modified Rosenberg Self-esteem Scale (MRS). Immediately post-training, carers completed the RAD scale and gave information about the perceived effect of the training on their relationship with the child. Information about the children and their placements was given by social workers.

A survey of 251 children in local schools provided normative data on the RAD and MRS.

The 3 day training programme focussed on communication skills and attachment. Fifty-two percent of those offered training attended.

Foster carers and teachers rated 60% of children as having some degree of emotional and behavioural problems and these were associated with previous emotional and sexual abuse. Fostered children had significantly higher scores for attachment disorders and lower self-esteem than the school sample.

Training participants perceived a benefit from the training in their relationship with the child. The training effected a small, non-significant, improvement in children's emotional and behavioural functioning and the breakdown rate of placements.

A recommendation is made for a trial of more intensive services for local authority foster families.

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List of abbreviations

Statistical abbreviations

M mean

sd standard deviation

df degrees of freedom

n number

p probability that result occurred by chance

% percentage

t t-test statistic

χ^2 chi-squared statistic

Outcome measures

SDQ Strengths and Difficulties Questionnaire

RAD Reactive Attachment Disorder Scale

MRS Modified Rosenberg Self-esteem Scale

Chapter 1- Literature Review

1.1 - Rationale for the study

The recent report on the situation of children in care by Sir William Utting and his team stated that the whole of the foster care population is more vulnerable than it once was. Many children entering care have already been abused and neglected or show disturbed behaviour and carers face a more complex and stressful task (Utting et al., 1998). A recent large survey of 800 Scottish Foster Carers, with a good response-rate (74%), showed that there was a perceived need among foster carers for more training on the enhancement of skills and the understanding and management of children's behaviours and difficulties. Almost half of the children in this study were felt by the carers to be more difficult than expected (Triseliotis et al., 1998).

The broad aim of the study discussed in this thesis is to test whether a training programme for foster carers has a beneficial effect on the emotional and behavioural functioning of children looked after by foster carers. Before proceeding to the study itself, there follows a discussion of foster care, emotional and behavioural functioning in children looked after by foster carers, issues of attachment in foster care and the role of communication in facilitating appropriate attachment.

1.2 - Methodology of literature review

Various social science and medical databases were searched from 1974 to the present day using the keywords foster -care/children/homes/parents and mental health/ psychology/psychiatry/psychopathology, then foster -care/children/homes/ parents and attachment. The databases were ChildData (National Children's Bureau), Psychlit Journal Articles, Psychlit Books and Chapters, Medline and BIDS Social Sciences Index. The reference lists of key papers were also searched.

1.3 - What is foster care?

> "To be a woman, to be a mother, to be lower middle-class or poor, to be in a minority group, to work for (with? under?) a child welfare agency, to be paid a pittance, to be asked to parent a child whom no-one else is able to parent, to try to love that child and to lose him when loving has been achieved, to be supervised by a 22 year-old social worker, to have to deal with school teachers, police, courts, medical appointments, angry

> biological parents and with the impact of all this upon one's own family- that is the lot and life of the typical foster mother."
>
> Comments made to Southton (p.50) (Southton, 1986)

The international perspective

The definition of foster care varies widely between countries. According to Colton et al., in some countries (e.g. Indonesia), the purpose of foster care is to improve the education of poor children by placing them in the homes of those who are better educated. In Argentina it is deemed to be in the best interests of the child to break biological ties, whereas in the UK and America, it is generally accepted that the interests of the child can best be served by maintaining biological links. Foster carers are therefore expected to complement the child's own parents rather than provide a substitute. In some countries, e.g. Poland, the term "foster care" includes placement with biological relatives, whereas in others, e.g. Ireland, the term specifically excludes placement with kin (Colton and Williams, 1997). Foster carers in France are required to undergo professional training- a stark contrast to British practice (Dumaret and Coppel-Batsch, 1998). In most Western countries, it is rare for entry to foster care to be due to the death of parents, but this is not the case in some developing countries or where there is war (Ahmad and Mohamad, 1996).

This definition, by Scottish researchers, is probably most appropriate to the Scottish context:

> "Fostering could be defined as the undertaking to look after someone else's child for a few days, weeks, months or even years, for an allowance or fee" (Triseliotis et al., 1995).

What kind of people are foster carers?

Berridge (1997) noted in a recent review of the research over the last twenty years that "foster carers are very conventional in their social profile". According to a recent Scottish survey, likely to be representative due to its high response rate and large number of subjects, Scottish foster carers are similar in demographic characteristics to other Scottish families except that they are more likely to be older than other parents with dependent children, to be two parent households, to live in larger houses which

they are more likely to own and to be practising members of a religious group (Triseliotis et al., 1998).

What motivates people to be foster carers?

The Triseliotis study showed that 50% of the Scottish foster carers surveyed had altruistic motives for wanting to foster ("having something to offer" or "awareness of need"). Twenty-seven percent gave a fondness or liking for children as their main motive, while only 10% fostered to create or extend their family (Triseliotis et al., 1998). These findings mirror those of other British studies (Dando and Minty, 1987; Gorin, 1997). In contrast, a survey in the Irish Republic, with a reasonable response-rate of 54% (n=73), found that 67% of the carers surveyed had overwhelmingly altruistic motives. The authors speculate that this may be because of the more rural and perhaps more religious nature of the area (Gilligan, 1996). Dando and Minty (1987) showed, in interviews with eighty foster carers and their social workers, that those foster carers whose motivation to foster was childlessness, altruism/social conscience or identifying with deprived children due to past experiences of their own tended to be rated by their social workers as providing "excellent" or "generally good" care. In contrast, those who simply wanted to nurture children tended to be rated as providing "barely adequate" care. In a large survey carried out in the West of Scotland, the breakdown rate of foster placements was much lower (29%) when the motivation towards permanent placement was childlessness than when permanent placement was seen as a "task" (breakdown rate 79%) (Strathclyde Regional Council Social Work Department, 1991).

What kind of care is provided by foster carers?

In a small but influential study, Colton gathered both qualitative and quantitative data from twelve foster carers/couples and the senior member of staff of twelve children's homes in England. Data from structured interviews suggested that foster placements were to be more child-oriented, although the author's opinions played a part here. For example, going to bed at the same time every night and having to ask permission before watching television were regarded as less child-oriented. Foster placements had better physical amenities and children had more community contacts than those in residential care. The behaviour and attitudes of foster carers and residential workers were directly observed, although the fact that the observations were made by the same person who analysed the data means that the results could be biased. Foster carers used fewer

ineffective and inappropriate techniques of control and used warmer, more approving, informative (as opposed to controlling) speech than residential care staff. Children received more adult attention in foster homes and their perceptions of their environments compared favourably with children in residential care (Colton, 1988).

One of the most influential studies on foster care was the retrospective cohort study in the USA by Fanshel, Finch, et al. (Fanshel et al., 1990) in which the casenotes of 585 children in the Casey Family Programme were examined in detail, and 59% of a random subsample (n=106) followed up as adults. One problem with this type of study is that those whom the researchers have been unable to contact may be those who had a poorer experience in foster care, thereby introducing a bias towards a better impression of the service. Also, the way adults remember information from the past might be biased and it is important to note that the Casey Family Programme specialised in more difficult or "special needs" children. Twenty-five percent of those interviewed reported severe physical punishment while in foster care, while the vast majority reported that they were treated kindly and accepted as family members. A study in the USA showed that reports of maltreatment by foster families were three times as frequent as in the general population (Benedict et al., 1994). This difference could be due to a number of factors including an increased rate of supervision of foster families, leading to increased reporting of maltreatment, or to true increased rates which could be due to the stressful nature of foster placements or the fact that families do not have biological relationships.

Adult outcomes after foster care

Various studies have sought information from alumni of foster care regarding their current functioning. In most of these studies, the response-rate was fairly good at around 70%. The Fanshel, Finch, et al. (Fanshel et al., 1990) study mentioned above found that most respondents (66%) were wage-earners, with only 10% receiving public assistance. Thirteen percent had serious drug problems, with a third having had such problems in the past. A quarter had had alcohol problems, thirteen percent currently. In a later cross-sectional survey of alumni of the same programme (the Casey Family Program), most saw their experiences in foster care as positive and only 6% were unemployed, although there was no control group with which to compare (Wedeven et al., 1997).

A French retrospective cohort study of 63 adults reared in long-term foster care (for at least five years) gave a picture of foster care which was surprisingly positive. Similar

proportions of alumni were married, were home owners and were employed as the French national averages. The social class spread was similar to France as a whole, except with slightly more workers/service personnel compared to French norms and no "executives". More were divorced (9% versus 3.9%) and had no high school diploma (67% versus 21.8%). A third had used drugs, a quarter had had charges or arrests for criminal activity and 13% described themselves as having health problems. Unfortunately no French norms were available for these items. Participants had better educational achievement the longer they had been in foster care and a poor educational outcome was associated with learning difficulties *before* going into care. Poor adult outcome was associated with social or psychiatric disorder in the birth parents and with problems such as abuse before going into care. A major concern in such a study is that a poor response-rate might produce more optimistic results because those who could not be contacted are more likely to be experiencing problems. Such a criticism cannot be levelled at this study; quantitative information was obtained on 94% and qualitative information on 71% of those offered entry (Dumaret et al., 1997).

A retrospective cohort study from the US of adults who had been in long-term foster care gave a less rosy picture. Again, no comparison group was used and this time no US norms were presented for comparison. Forty-two percent had not completed high school, 31% were unemployed, 27% had been homeless, 54% had used drugs, 20% had been arrested, 45% had been violent to their partner and 35% had been victims of their partner's violence (Benedict et al., 1996b).

Recruitment and retention of foster carers

Many local authorities, particularly in urban areas, struggle to recruit and retain enough foster carers to meet the needs of local children and the length of time foster carers can be retained varies greatly from authority to authority (Triseliotis et al., 1998). "Comprehensive, culturally responsive, community-based teamwork approaches" have been widely viewed as the state of the art for improving recruitment and retention of foster carers (Pasztor and Wynne, 1995), but more recently it has been recognised that, as for most sections of society, monetary recognition for work done is one of the most important methods for recruiting and retaining foster carers (Testa and Rolock, 1999). It has been shown in a randomised controlled trial that even a modest increase in the monetary allowance to foster carers is sufficient to significantly improve retention (Chamberlain et al., 1992).

Conclusions

The definition of foster care varies from country to country. Motivations to foster also vary, but foster carers on the whole appear to come from a fairly representative cross section of the population. The motivation of carers seems to influence the quality of the placement, with childlessness being positively associated with good placement outcome in more than one study. The care provided by foster carers appears to be of generally better quality than that provided in children's homes, and adult outcome of long-term foster care is surprisingly positive considering the nature of the group of children requiring care and the problems identified during placement (see following section). The outcomes of French and American studies are similar with the main differences from the general population being in educational achievement and future criminal activity.

1.4 - The emotional and behavioural functioning of children in foster care

The prevalence of emotional and behavioural problems in children in foster care

It has been known for many years that children in foster care are particularly vulnerable to emotional and behavioural problems. Studies of emotional and behavioural disorder in children in foster care, however, have been carried out in a variety of different samples which are difficult to compare. Fanshel and Shinn followed 585 adults (59% response-rate) who had been aged 0-12 on entering foster care for the first time in New York in 1966. They found that a third of adults who had been in long-term foster care reported feeling under strain, dissatisfied with life, or lonely; a surprisingly low proportion when it is considered that this was a program designed for children with special needs. They also found that those who had had a greater number of placements as children had more emotional problems as adults (Fanshel et al., 1990). The direction of effect here is unclear; it is possible that a greater number of placements results in greater emotional problems, but it is equally possible that pre-existing emotional problems result in more frequent breakdown of placements.

More recent studies have also shown a high rate of mental health problems. A two-stage cross-sectional study in Oxfordshire, with a comparison group matched for age and sex, used the Achenbach Child Behaviour Check List (CBCL) as a screening instrument, then interviewed high-scorers using the semi-structured Kiddi-SADS. The

prevalence of psychiatric disorder in adolescents in foster care (weighted for the two-stage sampling design and the existence of non-responders) was 57%, as compared with 15% in the comparison group (McCann et al., 1996).

Unfortunately such problems also seem to be prevalent in younger children: a cross-sectional study of four to eight year old children in foster care in Tennessee, which also used the CBCL, showed that nearly half had evidence of psychological disorder (McIntyre and Keesler, 1986). A Belgian cross-sectional study of 158 children aged 4-12 gave a somewhat lower rate (41%) of "seriously deviant behaviour" according to the CBCL; particularly attention problems, aggressive behaviour and social problems (Hellinckx and Grietens, 1994). Direct comparison with the Tennessee study is difficult as the Belgian sample was drawn from children in "specialised foster care", who might be expected to have a higher rate of problems. The response rates of the studies are also very different; 97.5% in Tennessee versus 42% in Belgium and the studies may be using different cut-off points for disorder. The vast majority of studies use the foster carer as the informant on the CBCL. There may be biases inherent in this as demonstrated in a small study in which teachers noted fostered children to be different from controls but carers did not (McAuley, 1996). It is possible that foster carers may under-rate problems as they are used to living with children with a high rate of difficulty.

Dumaret et al. have examined psychological problems in fostered children of below-average IQ. A cross-sectional case-note review was made of all children in foster care (n=127) in 7 French areas, with IQs of 60-90. All had been adopted after the age of four years and had had a full assessment in the year before adoption. At the pre-adoption assessment, nearly half had emotional/psychological problems - nearly four times the French average. Factors associated with mental health problems included maternal mental retardation, late age at first adoption and a history of abuse and neglect (Dumaret et al., 1997).

More optimistic results have been found in children in "kinship" care, i.e. looked after by relatives. A North American cross-sectional survey of all such children in Baltimore (n=524), with questionnaires to 100% of caseworkers and comprehensive physical and mental health assessments of 78% of children found that 26% had problems as defined by the CBCL. The authors note that this may be a different population of children than those placed in non-relative care in terms of the reasons for placement (Dubowitz et al., 1994). In other words, poorer mental health outcomes in foster care are unlikely to be

due to the foster care experience itself, a point emphasised by a case-control study in which 50 children who were in foster care due to abuse or neglect for at least three months were compared with 50 children eligible for Medicaid, i.e. from low-income families. Mean CBCL scores were higher for foster care sample, but differences were no longer significant when controlled for family structure and stability. The samples, however, were fairly small (65 per group) and there was a trend in the direction of higher scores in the foster care group (Hulsey and White, 1989). Another study comparing children in foster care with others on government insurance programmes showed that children in foster care in California comprised 41% of all users of mental health services paid for by "Medi-Cal", despite representing less than 4% of "Medi-Cal" eligible children. When compared to non-fostered children, they had 10 to 20 times the rate of utilization per eligible child of these services. Seventy-five percent of claims were for adjustment disorders, conduct disorders, anxiety disorders and emotional disorders and use increased with increasing age of the child. At face value, this study would appear to contradict the findings of Hulsey and White, but the findings could be due to increased identification of problems or to court mandated assessments of children in foster care (Halfon et al., 1992).

Determinants of emotional and behavioural problems in children in foster care

There is little information about the kinds of children entering foster care. A retrospective cohort study which used case records of a fostering agency in Pennsylvania found the that reasons for admission to care included physical illness in a parent, the child's own emotional or personality problems, overwhelming family problems, mother's mental illness, abuse or neglect (Lawder et al., 1986). Benedict et al. showed that those who had demonstrated behaviour problems prior to entering foster care were at three times the risk of reporting mental/emotional symptoms in adulthood (Benedict et al., 1996b). Looking at these determinants in more detail, a case-control study compared 49 consecutive referrals to a mental health program from a foster care agency in New York with all non-referred children (n=19) from the same agency. Referred children also had higher CBCL scores than the non-referred, as expected. The referred children had spent less time in care, less time in their current foster home, were older when first placed, had been in more placements and were less likely to have been placed with relatives. They were also less likely to be satisfied with their foster home and their foster carers were less experienced. However, referral to mental health services is not necessarily a direct indicator of true disorder (Cantos et al., 1996). The

number of previous placements appears also to be important in younger age-groups. Children in foster care under the age of 3 were shown to exhibit more oppositional behaviour and crying if they had experienced more foster placements (Gean et al., 1985). Two major determinants of emotional and behavioural functioning while in care, therefore, seem to be functioning prior to entering care and the number of previous foster placements. These factors may, of course, be linked; previous functioning may, at least in part, determine the frequency of placement breakdown.

In a retrospective cohort study of children in foster care in California (n=662, response-rate 78%), subjects were shown to be nearly five times more likely to receive mental health services if they had been brought into care due to sexual abuse, compared to those brought into care for other reasons, regardless of the degree of behavioural/emotional problems on CBCL, their age or their gender. Children were two and a half times more likely to receive mental health services if they had been brought into care due to physical abuse, compared to those brought into care for other reasons, but half as likely to receive mental health services if they had been brought into care due to neglect. CBCLs were done when some children were already in treatment, which may have lowered scores in the referred group, but the overall message stands; children who had experienced active forms of abuse were much more likely to receive services than those who had experienced passive forms (Garland et al., 1996).

A case-control study comparing 78 children who had been abused/neglected while in foster care with 229 who had not showed that those abused while in foster care were significantly more likely to have mental health and development problems (Benedict et al., 1996a). It is possible that the mental health problems are, at least in part, a result of suffering further maltreatment once in foster care, but it is equally possible that children with pre-existing difficulties are harder to care for and more prone to abuse. This serves as a reminder of the vulnerability of children in foster care and that existing mental health problems might result in further problems if left untreated.

Treatment of emotional and behavioural problems in foster care

Few research groups have assessed the effect of foster care itself on the emotional and behavioural functioning of children. One of the most direct pieces of evidence that foster care can, of itself, be therapeutic compared to other forms of care, comes from Iraqi Kurdistan. Fifty-four orphans, 24 in orphanages and 30 in foster families were assessed using the CBCL and a checklist for PTSD. Total problems on the CBCL

increased in the orphanage group while significantly decreasing in the fostered group and the orphanage sample reported a higher incidence of PTSD than the fostered group (Ahmad and Mohamad, 1996). An eight-year prospective cohort study of 16 older boys (aged 5-9 at placement) placed in permanent substitute care, which used both interviews with carers and Rutter-A Scales, showed that conduct and emotional problems fell significantly over the first year, but relationship difficulties and overactivity changed little with no significant change after one year. A third of placements disrupted or had a poor outcome, but this was associated with pre-placement adversity(Rushton et al., 1995). A study, by the same group, in which 61 children were followed up over one year in permanent placements found little change in overall behaviour, but did find a reduction in disobedient behaviour and the level of emotional problems during the first year (Quinton et al., 1998).

Unfortunately, accounts of treatment of children in foster care are rare and evaluation unsatisfactory (Barrows, 1996; Bondy et al., 1990). Bondy et al. (Bondy et al., 1990) highlight the difficulties of individual psychotherapy for children in foster care presented by lack of permanence and children having to move foster carer, school and therapist all at once. Newer treatments designed for children with attachment difficulties are being used in some centres (Hughes, 1997), but no formal trials have been carried out. One innovative model for improving the emotional and behavioural functioning of children in foster care was the Fostering Individualized Assistance Programme (FIAP) in which children aged 7-15, deemed "at risk" of behaviour problems after screening, were assigned a specialist case-worker who co-ordinated and/or delivered such services as individual and family therapy, advocacy, educational assistance and financial help. This was assessed by randomised single-blind controlled trial and showed that, after 18 months, the FIAP group were doing better as measured by the CBCL than controls and there were fewer runaways in this group (Clark et al., 1994). Cost-effectiveness evaluations would be essential before such models became part of mainstream services.

Conclusions

The assertion that children in foster care are "a huge reservoir of unmet pediatric and psychiatric needs" (Rosenfeld et al., 1997) appears to be born out by the research. Around 50% of children in foster care, across a range of samples, appear to have significant mental health problems. Research, however, is weighted towards children in

long-term foster care with little information about the mental health needs of those who enter short-term placements. The differences between children in foster care and children of similar social backgrounds are considerably less when birth family structure and stability are controlled for, which suggests that the experience of foster care itself is not a significant contributer towards children's problems. Rates of mental health problems appear to be lower in children placed with relatives, but these findings may be, at least in part, due to lower reporting. Also, the pre-placement problems of children whom it was possible to place with relatives may have been less severe. Mental health problems are associated with problems before entry to care and it is possible that such problems may make the child more vulnerable to placement breakdown and/or further maltreatment. In one study (Cantos et al., 1996), there is evidence that early and longer placement in foster care may be beneficial, particularly if there were few changes in placement. This implies, as do the studies by Rushton et al. and Ahmad & Mohamad (Rushton et al., 1995; Ahmad and Mohamad, 1996) that a stable placement might be therapeutic. Conventional therapies are difficult to deliver to this group. However, when adult outcomes are noted (see section 1. 3), the long-term prospects seem better than is suggested by studies done while the children are still in care.

1.5 - Breakdown of foster placements

One of the major concerns about the effectiveness of foster care is the rate of "breakdown" or "disruption" of placement; i.e. the proportion of children whose foster placement ends in a manner different to the social work plan. For example, in a classic study, still often cited, Parker (1966) showed that 48% of the 209 long-term foster placements made in one year in Kent broke down over 5 years, with 70% of these breakdowns occurring over the first two years. Age at placement and behaviour problems prior to placement were significantly associated with breakdown. More unexpected factors included loss of the birth mother through death, a greater number of foster carers' biological children in the home, a greater number of foster carers' biological children under the age of five and foster carers' biological children within five years of the age of the fostered child. Placements with childless foster carers were found to be significantly less prone to breakdown. It is interesting to compare these findings with the more recent finding that the motivation to foster of "childlessness" is associated with good quality foster care (Dando and Minty, 1987). Perhaps an environment free of potentially rival children allows the development of a healthy attachment between the carer(s) and the child.

A more recent British study compared two local authorities and breakdown rates varied greatly between them. For long-term placements, the breakdown rate at one year was 19% and 9%, and within five years 46% and 20%. The breakdown rate was considerably higher for those fostered with non-relatives. For intermediate placements, including specialist placements, the rate was 35% in one authority, 15% in another and 15% in a voluntary agency. Ten percent of short-term placements broke down prematurely, but 28% were still in placement six months later, lasting much longer than the eight week maximum originally planned (Berridge and Cleaver, 1987). A large survey of over 3500 children accommodated in six English local authorities found an overall rate of breakdown of 26% (Rowe et al., 1989). This was a particularly important study because it had a complete sample and included placements of all durations.

A cross-sectional study in Strathclyde of 99 temporary placements of greater than four weeks duration showed that 20% broke down. The disruption rate was particularly high amongst older children, in those foster families who had looked after more than 43 children, where the foster carers had been approved more than 7 years previously, where doubts about the foster family had previously been expressed, where social workers and/or foster carers perceived the child as having severe behaviour problems and where there was no link worker involved with the foster family. This is a strong study in that information was gathered on 100% of children placed within a four month period, but its findings are weakened by the fact that approximately 1000 variables were examined in the research which greatly increases the probability of spuriously "significant" results being obtained (Strathclyde Regional Council Social Work Department, 1988).

The sister study of permanent placements found that 35% broke down during the three year follow-up period of the study. It examined in detail the reasons why placements disrupted using interviews with social workers, foster carers and children. Factors in the children associated with disruption included emotional and behavioural difficulties and a strong attachment to birth parents. However, where children felt they had been kept in touch with their religious group and social class there was less likelihood of disruption. Factors in the foster family were also associated with disruption. Breakdown rates were higher where there was only one biological child in the foster family than when there were none or more than one (providing a contrast to the Parker study). Where the social worker thought that the foster carers were able to handle a lot

of behaviour problems, the disruption rate was low (16%). Forty percent of foster carers felt that social workers negatively affected placements by failing to pay allowances or failing to give support. Where these problems were severe, the disruption rate was 61%. Only a small proportion of social workers had spoken to the child on their own to determine their wishes prior to placement, yet in all placements where the child objected, the placement disrupted. There was a high disruption rate (75%) where social workers did not keep in touch with carers after approval and before placement of the child. Disruption rates were higher when social workers had less than 6 years experience, but lower than average when they had more than 10 years and when workers were specialised in child care (Strathclyde Regional Council Social Work Department, 1991). Again, this study had information on 100% of placements made within the time period of the study (3 years) but used multiple testing to arrive at statistical associations.

A study during the same time period was carried out to examine the breakdown rate, and reasons for breakdown, of permanent placements made in Lothian Region. Nearly 21% of these placements broke down during the three years of the study, almost half of which occurred in the first year. The factors related to breakdown were similar to those in Strathclyde, but in addition they noted that splitting of siblings and having a young biological child in the foster placement already were associated with breakdown (Borland et al., 1991).

It is not meaningful to compare breakdown rates in the UK with those in other countries because of the different definition of foster care; for example, in the USA, "foster care" often includes what, in the UK, would be called small residential placements. However, the factors associated with breakdown are similar. For example, studies from the USA and Canada found that placement breakdown was more likely if the child had behaviour problems (Palmer, 1996; Pardeck, 1984).

Conclusions

Before summing up the research on breakdown rates, a cautionary note is warranted. Disruption is difficult to define so studies can be difficult to compare. Parker was studying permanent placements and therefore made the relatively simple definition that if the child was no longer in the foster home at the end of five years, the placement was a "failure". However, any family in which circumstances leading up to the removal might have caused biological children to be removed (such as death of the foster

parents) was deemed "impossible to classify" (Parker, 1966). The Lothian study used a similar definition (Borland et al., 1991). Clearly, when the placement was planned as being temporary, the definition could not simply rest upon the child still being in placement after a certain time had elapsed. The Strathclyde study of temporary placements defined a breakdown as a "disruption of the social work plan", but it was not always clear whether a change in social work plan followed or preceded a change in placement of the child (Strathclyde Regional Council Social Work Department, 1988). The Strathclyde study of permanent placements used a definition similar to that of the temporary placements (Strathclyde Regional Council Social Work Department, 1991).

Breakdown rates are very variable from area to area, but seem to be approximately 20% in the short-term and between 20 and 50% in the long-term. There is a suggestion that the rates of breakdown may have fallen in the decades since the Parker study (for example, 34% over 2 years in the Parker study c.f. 21% over three years in Lothian Region), perhaps due to changes in social work practice and in the type of children placed in foster care.

1.6 - Children's attachment/emotional involvement with biological families and foster families

How do children in foster care feel about their foster families and birth families?

The study of foster family relationships necessarily involves complex examination of many individuals. As a result, studies tend to have small sample sizes and to use a range of different measures. A study of 19 children entering foster care in Northern Ireland assessed the degree of emotional involvement of the child with members of the foster family. The Family Relations Test was used, in which children put "feelings cards" into dolls representing the foster family and "nobody". The highest scores went to "nobody", then to the foster mother, then to the foster father. Over the twelve months of the study, the child's emotional involvement with the foster mother increased, but did not exceed "nobody". As the Family Relations Test was not done with the birth family, it is possible that "nobody" represented birth parents. In fact, at all stages, the children tended to think that members of the birth family "loved them most in the world" and the children loved members of the birth family most in the world, despite most being admitted to care due to abuse or neglect by the birth family. One year into placement, they still thought and dreamed about birth parents frequently (McAuley, 1996). In a similar study, from the USA, 40 children in foster care were assessed using a structured

interview for family systems. These children tended to rate their emotional involvement with both birth parents and carers as low. A third of children thought that their degree of emotional involvement with foster carers was so low as to be problematic (Kufeldt et al., 1995).

The degree of contact with birth parents which is beneficial to children in foster placements remains controversial. A recent review of the benefits or problems of such contact concluded that methodological weaknesses preclude definite conclusions (Quinton et al., 1997). Fanshel, Finch, et al. (Fanshel et al., 1990) found that the less contact a child had with the birth mother, the less secure they felt in the foster home. The authors suggest that this may be due to complete loss of the birth family inhibiting the ability of the child to trust and accept the foster family and the authors see this as support for the policy of working closely with birth parents (page 94). However, multiple measures were used throughout this study, thereby increasing the likelihood of a "statistically significant" result when in fact there was no real association. Even if the association is true, the reason for the association may not be what the authors posit. It may be that those children who come from less disturbed birth families are both more able to maintain a relationship with the birth family and form a new relationship. It may be unwise to extrapolate from this conclusion that relationships with birth parents should be maintained regardless of the nature of that relationship.

More recent studies suggest that, in permanent placements at least, a strong attachment to the birth parent(s) is associated with a greater likelihood of placement breakdown (Strathclyde Regional Council Social Work Department, 1991). More subtle factors may be important here and, in particular, a trusting relationship between foster carers and birth parents. A cohort study in the USA found that placements were more stable where birth parents had prepared children for placement (Palmer, 1996). Gean et al. looked at associations between the current functioning of 23 children aged under three in foster care and information about visits with birth parents gleaned from casenotes. Children exhibited more symptoms, particularly toileting problems, aggression, clinging and crying, where the foster carer was opposed to visits with birth parents, was anxious about such visits and where the visits took place in the home of the biological parent(s). It is not clear, however, how these symptoms might translate into later disorder (Gean et al., 1985). In a study by Kufeldt et al. children who visited their birth parents more frequently were more likely to rate their parents as healthy/normal (Kufeldt et al., 1995). Again the direction of effect is not clear. On the one hand, greater contact with

birth parents might improve the child's view of them. On the other hand, more "normal" birth parents may be more able to sustain an ongoing relationship with their child while in foster care. Maintaining contact between looked after children and their birth parents can be difficult. A study, from the mid-1980s, of 450 children accommodated in 5 English local authorities showed that the child's entry to care had often been traumatic for all the family and parents were often left confused about their rights and obligations, which made visiting difficult (Millham et al., 1986).

The role of attachment in children's emotional and behavioural functioning

Attachment relationships with birth parents and foster families assumes great importance for children in foster care who have inevitably suffered separation and loss, but this is a little researched area. There is evidence from studies of both normative and clinical populations that insecure attachment may be an important risk factor for later psychosocial functioning (Crowell and Feldman, 1988; Warren et al., 1997; Lyons-Ruth, 1996; Goldberg, 1991). This raises an important question: "can children in foster care form secure attachments with foster carers which are beneficial to their emotional and behavioural functioning?".

Schaffer, in his book "Making Decisions about Children" (Schaffer, 1998) asks the question "is there a blood bond?". This is a difficult question to answer and most evidence comes from the field of adoption. Adopted children may, however, have had problems prior to adoption which make it difficult to assign any differences from the general population to the adoption experience per se. Seglow et al. studied all adopted children born in one week in 1958 and found that, while adoptees were more likely to have been deemed "vulnerable" at birth for reasons such as prematurity, teachers rated the them, at aged seven, as no different than the rest of the birth cohort in terms of adjustment. Age at placement did have an effect on later adjustment, with late placed children having more problems (Seglow et al., 1972). Rushton and Mayes have reviewed the research on attachment and adoption in later childhood and conclude that satisfying relationships do develop between most late-placed children and their new parents within the first few years of placement. Little is known, however, about the reasons for disruptions or the part parenting practices have to play (Rushton and Mayes, 1997). Singer et al. assessed attachment styles directly. The Strange Situation procedure is a well validated laboratory technique for assigning infant-parent dyads into "secure" or "insecure" categories according to the way they respond to a series of

mildly stressful separations and reunions. When used with 46 adoptive pairs and controls, there was no difference between the attachment status of adopted children and controls (Singer et al., 1985).

Such studies do not directly address the situation of children in foster care and, because of the lack of legal security, it would be easy to assume a lack of attachment security in foster care compared to adoption. Whether "permanency" in terms of adoption helps attachment with new caregivers remains controversial. A review of the literature on permanency planning and its effects on foster children found no difference in the psychosocial adjustment of children where permanency planning had taken place and those where it had not (Mailick Seltzer and Bloksberg, 1987). Various authors discuss how attachment theory can help in the assessment of children who are having difficulties in foster care, but there have been no published studies in this area (Charles and Matheson, 1990; Pilowsky and Kates, 1996).

Conclusions

Children in foster care often do not have anyone in whom they feel fully emotionally invested, but they tend to think about and love their birth parents a great deal. This is particularly true for those where there is frequent contact with birth parents and frequent contact is also associated with children seeing their birth family as normal and healthy. These effects could be due to better functioning birth families visiting more frequently, and/or to the visits improving the child's view of the birth family. The response of young children to parental visiting appears to be associated with the response of their foster carers, although the clinical significance of this is not clear. Attachment styles in infancy have been shown to be associated with later psychopathology, but there is no research on the role of attachment in the emotional and behavioural functioning of children in foster care. There is evidence from the literature on adoption that the development of attachment relationships does not depend on a "blood bond" and, surprisingly, the literature does not support the suggestion that lack of permanency planning is detrimental to psychosocial outcome. The development of secure attachments in foster care may be both possible and beneficial to the emotional and behavioural functioning of the child, but this requires investigation.

1.7 - The role of communication in foster care

Communication and attachment

There is growing evidence that the development of secure attachment relationships is closely linked with communication between parent and child on attachment related issues. The original work of Ainsworth showed that the quality of attachment between mother and infant was associated with "maternal sensitivity", i.e. the ability of the mother to attune to the infant's signals (Ainsworth, 1979) and it has more recently been shown that this attunement between caregiver and infant is truly mutual, even from the first two months of life (Reddy et al., 1997). The extent to which maternal sensitivity is related to language acquisition was examined by Klann-Delius and Hofmeister who performed Strange Situation tests on 25 seventeen month old children in which ten minutes of each session were taped and transcribed. The verbalisations of the children and their mothers were then rated for quality of relatedness on various dimensions. They found that securely attached children were communicatively more active, but associations with other aspects of language were weak or non-existent (Klann-Delius and Hofmeister, 1997). There are also indications that the emotional quality of communication is associated with attachment styles. Using a Q-sort test for attachment styles, Denham studied the relationship between emotional communication and attachment in 47 3-4 year olds and their mothers. She found that when mothers were simulating sadness, securely attached children were more likely to communicate sympathy towards them (Denham, 1994).

Main has shown that the ability, in an adult, to form a coherent "story" of attachment related experience in one's own life is characteristic of a secure "adult attachment" style. The measure used in this study was the Adult Attachment Interview. This is a semi-structured interview in which adults are asked for various adjectives describing attachment figures and also for descriptions of incidents to back these up. Analysis of the transcripts and categorisation of subjects is based on the form, rather than the content, of the language used. A secure adult attachment style is associated with a secure attachment style with the adult's child as measured by the Strange Situation. This association may well be mediated through greater maternal sensitivity in those mothers with a secure adult attachment style (Main et al., 1985). There is, therefore, evidence for associations between the quality of early communication and attachment and for associations between adult attachment and maternal sensitivity. The direction of

effects is unclear and it is possible that the quality of attachment and the quality of communication could be linked in either a positive feedback cascade or alternatively a negative feedback cascade.

There is, however, less evidence about the role of communication between parents and older children in determining or perpetuating the attachment style of the relationship and hence the emotional and behavioural functioning of the child. This might be in part because, in this culture at least, the importance of verbal communication in determining healthy emotional and behavioural functioning of children has been seen as axiomatic. Our assumption that communication has a central role in emotional and behavioural functioning is clear from the many treatment programmes which focus on the quality of communication between parent and child in order to effect change ((Webster-Stratten and Herbert, 1994). From the author's own observations, however, this assumption may not hold true in all cultures (see Appendix 1) and hard evidence that attachment and communication are central in effecting therapeutic change for children beyond infancy is scant.

In a German study, 40 infants and their caregivers underwent various measures of attachment security (including the Strange Situation and Adult Attachment Interview) when the child was 12 to 18 months old. When the child was 10 years old the families did the Family Interaction Task in which the family discusses a fictional vacation. Communication between mother-child pairs who had been securely attached at 12 months was characterised by greater connectedness (e.g. validation, support) as opposed to individuality at age ten. Children who displayed greater connectedness also had greater success in peer relationships. Again, the direction of this effect is not clear, but demonstrates the close relationship between communication in families, attachment styles and aspects of psychosocial functioning (Freitag et al., 1996). Therapeutic work with conduct disordered children has suggested that the attachment style of the parent is associated with the family's response to treatment (Routh et al., 1995).

We are not dealing, however, with a sample of infants forming attachments with biological parents; the process of forming new attachments in foster care may be more difficult because of the child's previous attachment experiences and the late age at which the new attachment is being formed. Tizard's work, in which children who had grown up in institutions with no primary attachment figures were studied after adoption, showed that even though there was no effect of early institutional rearing on IQ in those

who were adopted (Hodges and Tizard, 1989a), there were problems with emotions, behaviour, peer relationships and other close relationships compared with matched controls (Hodges and Tizard, 1989b). Despite these difficulties, many late-placed children do seem capable of forming fresh attachments with new carers, but the factors which facilitate this remain obscure (Rushton et al., 1995; Quinton et al., 1998).

Communication in foster care

In the previously mentioned Northern Irish study of 19 children entering foster care, the children's main confidante, if they were worried about something, was their foster mother, yet many of the foster children thought it was "not OK" to talk about their pasts or about contact with birth parents (McAuley, 1996). This difficulty in talking about problematic issues seems to be reciprocated by the foster carers. In a cross-sectional postal survey of foster carers in the Republic of Ireland, 43.3% of carers were at a loss about what to do if children they were looking after talked about painful issues from the past. Nearly half found it difficult to make sense of "what was really going on in the child's mind" (Gilligan, 1996).

The possible role for training foster carers in communication skills and attachment issues

There is therefore evidence, albeit scant, that communication between children in foster care and their carers is problematic, particularly regarding emotionally laden issues. There is better evidence that, in biological families, there is a complex relationship between attachment styles, communication and emotional and behavioural functioning. Because attachment is a particularly important issue for children in foster care who have inevitably suffered separation and loss, it is probable that anything which improves the quality of attachment between the child and his or her caregivers will have a beneficial effect on the child's emotional and behavioural functioning. Improved communication and an understanding of attachment related issues by foster carers might achieve this. For this reason, a training programme for foster carers which focuses on both communication skills and attachment might have a beneficial effect on the emotional and behavioural functioning of children in foster care and warrants investigation.

Conclusion

In biological families, there is evidence for a complex interrelationship between attachment and communication which is associated with children's later emotional and behavioural functioning. It appears that fresh attachments can form with new caregivers in later childhood, but the role of communication in the formation of such later attachments has not been directly studied. Foster mothers may be the main confidante for children in foster care, but both carers and children may find it difficult to talk to each other about painful issues. A training programme focussing on communication skills and attachment might improve communication and attachment in foster care with beneficial effects on children's emotional and behavioural functioning.

1.8 - Training of foster carers

Two strands of evidence from the literature reviewed above led to the conclusion that training foster carers in communicating with children might improve the emotional and behavioural functioning of the children they look after.

1. Children in foster care are particularly vulnerable to emotional and behavioural problems, and foster carers may be the main confidantes of children in foster care about their worries.

2. Children in foster care are still unable to talk to foster carers about particularly difficult issues, and foster carers also feel under-confident about this.

It is generally accepted that training for foster carers is essential (Triseliotis et al., 1998). The effect of training on foster carers and the children they look after has not, however, been adequately studied and the Department of Health Social Services Inspectorate recommends that the effectiveness of training programmes for foster carers be evaluated (Woods, 1996).

What training opportunities do foster carers have?

The degree and timing of training varies across the UK. A cross-sectional study of foster carers in Hampshire showed that 15% had had no initial training, and of those who had, 75% found it useful or very useful, but 85% said they would like extra training (Gorin, 1997). A recent Scottish study has shown around a quarter of carers either had

no ongoing training opportunities (after preparation), or did not attend and 59% felt "unprepared" when they began their first placement (Triseliotis et al., 1998).

Evaluation of training for foster carers

Various training programmes for foster carers have been described without formal evaluation. The content of these programmes included looking after sexually abused children, working with birth parents, improving social networks of foster carers and understanding and managing difficult behaviour (Sanders and McAllen, 1995; Blumler et al., 1987; Gilchrist and Hoggan, 1996; Watson and McGhee, 1995; Sharp, 1988; Titterington, 1990). An early evaluation of foster carer training compared two groups of carers: one which had undergone sixteen weeks of behaviourally based training, the other which had not, in a non-randomised study. The authors concluded that the training reduced the incidence of placement breakdown and substantially increased the probability of carers remaining licensed (Boyd and Remy, 1978). Despite the fact that some potential confounding factors, such as foster carer experience, child's age and sex and the number of children in the household, were controlled for in this study, there may have been other unknown differences between the groups which could have accounted, wholly or in part, for the apparent effect of training. For example, those carers who had a good relationship with the social work department may have been more likely to actually attend training organised by the department. Such a relationship with the social work department might make carers less likely to have problems with the placement or to cease fostering.

Another non-randomised pilot study described a ten session training programme (3 hours per session) in which 7 foster mothers were assigned to the training and 7 to control on the basis of not being able to attend in the evening. The training focussed on helping skills, i.e. the ability of the carer to be respectful of and empathise with the child's experiences and to share their own feelings honestly with the child. There was a significant improvement in the "emotionality-tension" of the children as assessed by a foster-carer report measure, but there was no improvement in child self-esteem or antisocial behaviour (Levant and Slattery, 1982).

Attendance at training is a major problem. Because of poor attendance, one agency evaluated the effect of a monthly newsletter on parenting for foster carers. This was an uncontrolled before and after study and therefore, although participants' anxiety about

various aspects of difficult behaviour fell over the first year, this could simply be due to them having a year more experience as foster carers (Rich, 1996).

Randomisation of studies in the non-specialised field

There have been few randomised studies of training in the field of non-specialised fostering and the small size of those which do exist preclude firm conclusions. Cobb et al. randomly assigned 48 foster carers to one of two training groups: one run by professionals (psychologists and graduate students) and the other by experienced foster carers. The training consisted of 16 two-hour sessions supplemented by biweekly home visits and covered communication skills, behaviour management and conflict resolution. There were no significant differences between the groups on measures of conflict resolution and communication, although the results should not be seen as conclusive evidence that the two forms of training are similar, as the numbers involved were small (Cobb et al., 1982).

Another study looked at the effects of group training, the more usual model, versus individualised home-based training. Eighteen families were assigned to one of the two types of training according to which they preferred or randomly if they expressed no preference. There were few differences between the groups on behavioural vignettes and measures of parenting confidence, acceptance and trust, but, not surprisingly, the individualised trainees showed better attendance. In addition, the individual trainees appeared to have greater satisfaction with their family functioning as a result of training (Hampson et al., 1983).

In the early 1980s the opportunity for a study very similar to the present one was lost because the agencies involved refused to co-operate with random allocation. In the event, foster families were all offered around twenty hours of training on skills of empathy, understanding the child's needs and development and child management and the control group consisted of those who would have liked to have participated but could not for practical reasons. The findings were that those who were trained were more accepting towards their children, more able to provide appropriate responses and less likely to use destructive responses towards children in hypothetical situations. Unfortunately, this study suffers not only from the problem of the non-randomised design, but also from the fact that attendance-rates and response-rates to research measures are not quoted, so it is not possible to assess whether the group trained is likely to be representative of foster carers as a whole (Guerney and Wolfgang, 1981).

"Specialist" or "treatment" foster care

Various agencies, particularly in the USA, have developed "treatment" or "specialist" foster care. Usually this is aimed at special needs children and involves increased payments to carers and increased training and support, plus or minus the direct involvement of mental health professionals with the foster family (Bauer and Heinke, 1976; Almeida et al., 1989). The only such agency in Scotland which is currently placing significant numbers of special needs children is Barnardos. A review of outcome studies of "specialist foster care", where the foster carers are either trained to deliver psychological interventions or where there is ongoing input from mental health workers, suggests that there were large positive effects in increasing stability of placements, improving children's social skills, and moderate effects in reducing behaviour problems, improving psychological adjustment and reducing the restrictiveness of the post-discharge placement. However, only 20% of the studies had a comparison group, so only limited conclusions can be drawn (Reddy and Pfeiffer, 1997). In the Meadowcroft study, children were discharged from the programme to less restrictive settings than children in the control group, but as the design was non-randomised, this may have been due to effects other than the programme itself (Almeida et al., 1989).

Randomised controlled trials of specialised foster care

A specialised foster care programme for "seriously emotionally disturbed children" involving, on a weekly basis, three to five hours direct contact with staff for foster carers, individual sessions with carers and young people and family therapy for those birth families where rehabilitation was planned, was evaluated by randomised controlled trial. There was a decrease in institutionalisation (hospital placement) in the year after assessment and the programme was cost-effective (Chamberlain and Weinrott, 1990). Another randomised controlled trial examined the effects of enhanced support/training and an increased allowance of $70 per month for foster carers. Both enhanced support, training and pay and extra pay alone improved retention of foster carers over two years and foster carers' reports of child problem behaviours dropped (Chamberlain et al., 1992). The FIAP trial, mentioned earlier (section 1.4 *treatment of emotional and behavioural problems in foster care*), did not aim its intervention at foster carers, but rather provided individualised case-management for children with emotional and behavioural problems in a range of care situations including family foster

care. There was a significant reduction in the CBCL scores for emotional and behavioural problems and a reduced frequency of absconding for those young people in the group which received the intervention compared to controls (Clark et al., 1994).

Conclusion

Training of foster carers in ordinary settings has not been evaluated by randomised controlled trial, but uncontrolled studies suggest benefits as reported by foster carers. The effects on children have only been studied in a small pilot project and are inconclusive. Evaluation of specialised foster care has been more systematic, with one randomised controlled trial demonstrating cost-effectiveness and a less restrictive setting for the seriously disturbed children involved and another two demonstrating a reduction in children's emotional and behavioural problems.

1.9 - The research questions

From the examination of the literature, it is clear that there are many unanswered questions about the emotional and behavioural functioning of children in foster care and the ability of foster carers to modify this, with the appropriate training. This thesis will address the following specific research questions.

A.

1. What are the emotional and behavioural problems of this sample of children in foster care?

2. Are emotional and behavioural problems in the sample associated with past abuse and neglect?

B.

1. Is the training of foster carers in "communicating with children" associated with an improvement in the emotional and behavioural functioning of the children they look after?

2. Is the training of foster carers in "communicating with children" associated with an improvement in the breakdown rate of foster placements?

3. Is the training of foster carers in "communicating with children" associated with an improvement in the attitudes of foster carers towards their ability to care for children and towards the child in their care?

4. Do those who take part in the training perceive a benefit from it?

1.10 - The rationale for the use of the main outcomes measures

The main outcomes measures were chosen in order to make both a global assessment of children's emotional and behavioural functioning and to assess the more specific domains of attachment disorders and self-esteem. The rate of breakdown of placements was also of interest because of the well-known associations between emotional and behavioural functioning and placement failure (Parker, 1966; Palmer, 1996; Pardeck, 1984).

The global assessment of emotional and behavioural functioning

The Strengths and Difficulties Questionnaire was chosen to give the more global assessment for various reasons: it is well-validated and has been used in various large studies, it covers the major domains of child psychopathology (emotional problems, conduct problems, hyperactivity and peer relations) and in addition has questions about prosocial (caring, helpful) behaviour (Goodman, 1997; Goodman et al., 1998). Importantly, it has only twenty-five items covering one side of the page and this feature, plus the inclusion of questions about positive aspects of the child's behaviour, make it a particularly "user-friendly" instrument.

The assessment of attachment disorders

Attachment disorders are relatively new diagnostic categories which are increasingly being used to describe children in foster and adoptive placements. Despite being little researched, they have been included in the most recent psychiatric classification systems due to their clinical importance (American Psychiatric Association, 1994; World Health Organisation, 1992). These diagnostic classifications have developed from studies of institutionalised and maltreated children (Vorria et al., 1998a; Boris et al., 1998). Such youngsters show recognisable patterns of social interaction including disinhibition and indiscriminate affection or hypervigilance and aggression (Gaensbauer and Sands, 1979; George and Main, 1979). The importance of these syndromes for children in foster care is clear as they are much more likely to have experienced maltreatment and/or

institutionalisation than the general population. The background to these disorders and their nosological validity are discussed in an unpublished paper by the author in Appendix 2.

As explained in section 1.7, there is a possibility that a training programme for foster carers which focuses on communication skills and attachment might benefit the attachment between the foster carer and child and hence the child's emotional and behavioural functioning. However in a randomised controlled trial of this size, it would not be feasible to use observational measures of attachment styles. In any case, such measures have been used mainly in the normal population (Boris et al., 1998) and may not be appropriate for a sample of children in foster care in which virtually all are likely to have insecure styles of attachment. Not all children in foster care would be expected to show symptoms of attachment disorders, however, as these syndromes are thought to be relatively rare (American Psychiatric Association, 1994). Whatever their relationship with attachment styles (and this remains unresolved, see Appendix 2), the attachment disorders are clearly disorders of social relatedness and might be modified by improved communication and greater understanding of attachment related issues by foster carers. No well validated instrument for measuring attachment disorders existed, therefore a seventeen item parent/carer report measure, the Reactive Attachment Disorder Scale (RAD), was developed for the study. It includes symptoms of attachment disorders as described in the psychiatric classification systems. Further details about its development and validity are described in Chapter 2, section 2.9 and in Appendix 2.

The assessment of self-esteem

Self-esteem is an important domain to measure in studies of children in foster care because of its known associations with later emotional problems, particularly depression (Harter, 1993). What is being measured when referring to "self-esteem"? Harter agrees with Rosenberg (the author of the questionnaire used in the study) in defining self-esteem as: "the level of self-regard that one has for the self as a person". Children and adolescents who are depressed often make negative statements about themselves and it is not clear whether low self-esteem is really on the causal pathway towards depression or is simply an integral part of it (Harter, 1993). Regardless of whether low self-esteem is a precursor or symptom of depression, it seemed particularly important to measure it in this population because previous research has shown that the prevalence of major

depressive disorder can be grossly underestimated in children in local authority care (McCann et al., 1996). Self-esteem is by definition a self-report phenomenon and a questionnaire was sought that was short, had been well validated and could be easily administered to children as an interview. The Modified Rosenberg Scale fulfilled these criteria consisting of only eight simply-worded questions (Warr and Jackson, 1985). More details about all three questionnaires and the collection of data on breakdown rate are included in Chapter 2, section 2.9.

1.11 - The use of the randomised controlled trial in answering the research questions

Many previous studies have failed to show conclusively that training of foster carers had an effect on outcome because it was impossible to exclude the possibility of an effect being due to other factors. Currently, the "gold-standard" for evaluating an intervention is the randomised controlled trial (RCT) (Treasure and MacRae, 1998). When sufficient numbers of individuals are randomly allocated to two groups, the likelihood is that the two groups will be very similar on all known and unknown factors. If the intervention is then assigned to only one of the groups, the intervention will be the only difference between the groups (Pocock, 1983). RCTs have become widely used in psychiatry ((Bolam et al., 1998; Moynihan et al., 1998; Scott et al., 1997; Perry et al., 1999) and are the accepted method of definitively evaluating a new treatment.

There has been a move, in recent years, towards "pragmatic" RCTs in which all aspects of the trial attempt to simulate the real world as much as possible. The purpose is to be able to generalise the results of the trial to as wide a population as possible (Pocock, 1983). This can be achieved by using a heterogeneous sample recruited using as few inclusion and exclusion criteria as possible, not protecting the sample from other interventions and using a research intervention which would be feasible in normal practice. In analysing such studies, the "intention-to-treat" analysis is standard (Pocock and Abdalla, 1998; Roland and Torgerson, 1998). The "intention-to-treat" approach is so-called because it includes in the analysis participants who did not comply with the protocol to which they were assigned by randomisation. Clearly, in the real world, some patients will fail to comply with treatment and some foster carers will fail to attend training programmes. Such "failures" may well be due to features of the treatment itself, for example, the drug has unpleasant side-effects or a treatment programme is inaccessible to public transport. The analysis of the "treatment group" or, in this case, the training group must, therefore, include those who did not comply. This

is one reason why RCTs often report much smaller effects than uncontrolled studies (Pocock, 1983) and why some treatments which were thought to be promising initially turn out to be useless when subjected to a randomised controlled trial.

There is strong evidence for the efficacy and cost-effective nature of specialist foster care which involves contact with mental health staff, enhanced support and training, with or without increased financial allowances. Three randomised controlled trials have shown such benefits; improved behavioural functioning and reduced hospital admissions for the children and improved retention of foster carers. However, these programmes have only been tested on children with serious emotional and behavioural problems and not on the general population of children in foster care. On the other hand, the evidence for the efficacy of training in the non-specialised setting is weak; several studies had shown presumed benefits of training in such settings, but did not use a randomised controlled design. As the level of emotional and behavioural problems in the general population of children in foster care is high, it is essential to test whether training can improve the functioning of this population without the radical re-structuring of services necessary for the "specialised" foster care model to be instituted across the board. The timing is right for a pragmatic randomised controlled trial of foster carer training to be carried out within the general population of children in foster care.

Chapter 2 - Methodology

This chapter outlines the methods used in the study.

2.1 - Overview

The study was a single-blind randomised controlled trial of a training programme for foster carers. The unit of randomisation was the foster family, while the unit of measurement was the child. The principle investigator, Helen Minnis (HM) remained blind to the group status of participants throughout the study. It was not possible for the participants to remain blind to group status, but it was emphasised that we could not predict whether or not the training being offered to those in the study group was beneficial and that all participants were equally important to the outcome of the study.

2.2 - Pilot study

A pilot study was conducted in North Ayrshire prior to the study proper(Minnis et al., 1999). A group of eight foster carers took part in a three-day training programme based on the Save the Children Manual "Communicating with children; Helping children in distress" (Richman, 1993). Questionnaires were completed in the presence of the investigator and modifications to format and wording were made based on the carers' suggestions. On the last day of training, an audiotaped focus group was held in which the participants were invited to discuss the training and its effects. This was facilitated by one of the project supervisors, Tony Pelosi, who was unconnected with the training in the minds of the carers. The audiotape of the focus group was transcribed and analysed by content analysis. A full description of the pilot study is provided in Appendix 1.

2.3 - Inclusion criteria

Any child between the age of 5 and 16 living in foster care within the relevant local authorities (see below) who was likely to remain in placement for a further year after the start of data collection.

2.4 - Recruitment

Local Authorities

A letter of introduction about the study was sent to all local authorities in Central Scotland. A meeting was arranged with the Director or Head of Fostering and Adoption Services in each local authority who provided a list of eligible foster carers in their area. Further meetings with social workers and/or local foster carers were arranged where possible to publicise and answer questions about the study. Nineteen local authorities were asked to participate. Seventeen agreed and two refused; the City of Glasgow, a large conurbation and West Dunbartonshire a small suburban area with few foster carers. The urban local authority of Dundee was later approached and agreed to take part after the refusal of the City of Glasgow to participate. One of these eighteen participating local authorities (North Ayrshire) took part in the pilot study leaving a total of 17 local authorities participating in the main study. Ten foster carers, living in four of the participating local authorities, worked for Barnardos rather than for the local authority. Barnardos is a voluntary organisation which places children with special needs, including children with behavioural disorders and sibling groups. Because the numbers involved were small and because a heterogeneous sample covering as wide a population of children in foster care as possible was desired, the results for the Barnardos foster carers were not analysed separately. The resulting sample represents both urban and rural areas of Scotland (see map, Appendix 3). Participating local authorities were sent leaflets and posters with information about the study to distribute around each area office.

Foster carers and social workers

A letter of introduction, (see Appendix 4) was sent, with a leaflet, to each of the foster carers on the local authority's list. Each foster carer was telephoned to answer any questions they had about the study.

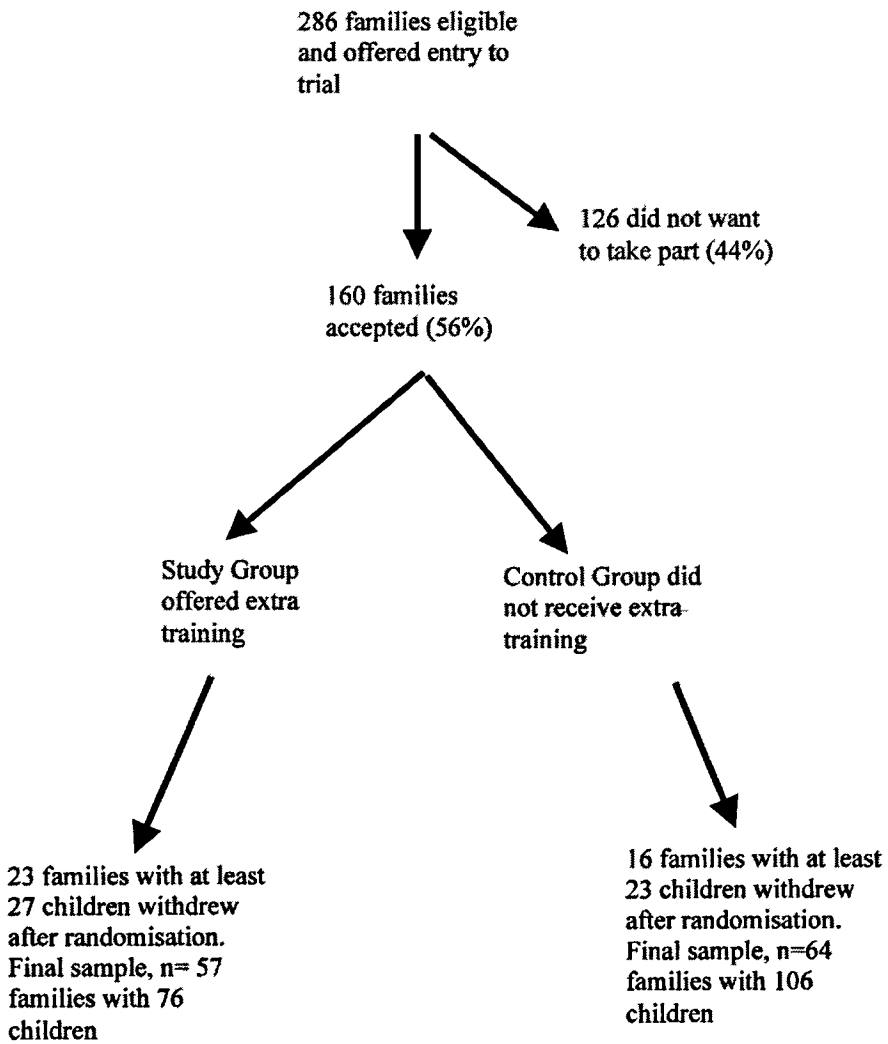
An information letter was sent to the Area Managers within each Local Authority along with a poster for the office wall, leaflets to distribute and information about the project.

A letter with enclosed information sheet, consent form and stamped addressed envelope was sent to all those foster carers who had expressed an interest in the study in the introductory telephone call.

Semi-annual newsletters were sent to all participants and contacts.

As can be seen from Figure 2.1, 160 families, with over 229 children, consented to take part in the trial (56% of eligible population). Thirty-nine families withdrew after randomisation, 23 in the study group and 16 in the control group. As some of these families did not complete background information questionnaires, the number of children who withdrew after randomisation is not certain but was at least 27 in the study group and 23 in the control group. This resulted in a final sample of 121 families with 182 children-a recruitment rate of 42%. In the control, the 64 families took part with 106 children. In the study group, 57 families took part with 76 children.

Figure 2.1 - Recruitment

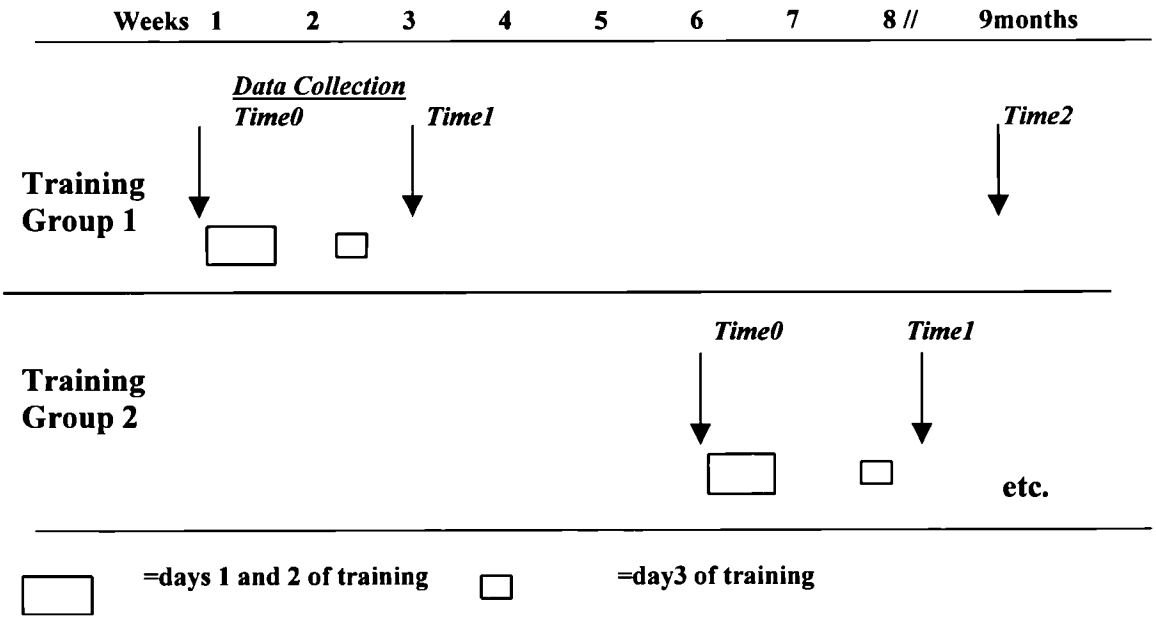


A randomisation list was produced which consisted of random permuted blocks of block size 12 (Pocock, 1983). This was kept by the study secretary, Kim Everett (KE) in a secret file and patients were consecutively allocated to the treatment or study group by her according to the randomisation list. Carers were notified by telephone and by letter, emphasising that Helen Minnis (HM) must not be informed of the group allocation.

2.6 - Data collection

Although this section is concerned with data collection, it also discusses some aspects of consent as these are linked. Data collection was particularly complex in this study because although foster carers could consent to take part in training and provide information about themselves, data could only be collected directly from children with the consent of their birth parents or, in certain cases, from the social work department. The process of data collection for the study group is described first, for simplicity, although many aspects of data collection were similar for the control group.

Figure 2.2 - Timetable of training courses and data collection



Data collection from the study group

Once consent was received, those in the study group were sent a form requesting background information (Appendix 4) and a letter reminding them that HM must not know to which group the family had been allocated.

A letter was sent to the children's social workers notifying them that the family was taking part and mentioning that HM would be phoning shortly. HM then telephoned social workers asking for help with contacting birth parents for consent and for background information on each child using a telephone checklist (see Appendix 4).

Where the consent of the birth family had been obtained, and before the training began, a home visit was made. Each child was given information about the study with the foster carer present and asked if he/she would like to take part once it was established that they had some understanding of what was involved. Those clearly able to understand the study (usually those of around 12 years or over) were asked to complete a consent form before participation. The child then completed the Strengths and Difficulties (SDQ) and Modified Rosenberg Self-esteem questionnaires on a laptop computer (see section 2.9). For younger children, the questions were read out and any questions with which the child had difficulty were explained without suggesting responses to the child. All children actively participated in entering their responses on the computer and only four children were unable to complete the questionnaires. The child's weight and height was measured and entered on the computer. After completion of the questionnaires, each child participant received a certificate of entry to the study (see Appendix 5) and younger children also received a small toy.

A copy of the Strengths and Difficulties Questionnaire (SDQ) was sent to the child's teacher.

Information about the training along with a map and a form for estimation of travel and childcare expenses, was sent to all members of the training group. Where possible a local contact person, usually a linkworker or experienced foster carer, was nominated to help the foster carers organise training arrangements. Expenses were calculated and provided for foster carers on the first day of training, or a cheque sent later if information regarding expenses had not been provided in advance. Foster carers were telephoned by KE in the week prior to the training to remind them of the arrangements and attempt to address any problems with transport or childcare.

Immediately prior to the training, Clare Devine (CD), the trainer, distributed *time 0* questionnaires to foster carers which were completed over coffee. Questionnaires for participants' spouses who did not attend training were sent home for return the following day. Questionnaires were sent to any carers randomised to the study group who did not attend training.

Time 1 questionnaires were completed at the end of the last day of training. Questionnaires for non-attending partners were sent home with a stamped addressed envelope to be posted to the principal investigator.

Those children taking part in the study at *time 0* were visited at home nine months after the start of the training and assessed in the same way as before.

Time 2 questionnaires were completed, where possible, during a home visit nine months after the beginning of the training. Where a visit was not possible, questionnaires were sent by mail.

Data collection from the control group

The *time 0* questionnaire was sent with an additional form asking for background information (see Appendix 4) at the same time as information about training was sent to those in the study group. A second mail-out to any non-responders was done two weeks after the first.

Data collection from the social worker, the teacher and the child proceeded as for the study group.

The *time 1* questionnaire was sent to those in the control group the day the training ended and a second mail-out was done to any non-responders two weeks later.

The *time 2* questionnaire was sent to those in the control group nine-months after the beginning of the training and a second mail-out was done to any non-responders two weeks later. Those children taking part in the study at *time 0* were visited at home nine months after the start of the training and assessed in the same way as before.

Blindness

The study was planned as a single-blind trial. In other words, the person collecting the data was kept uninformed of whether participants were in the study or control group. The purpose of this was to prevent bias during data collection. There is always a possibility of unconsciously suggesting the kind of questionnaire responses to children which indicate an improvement at follow-up if it is known that their carers have taken part in training. Stringent measures were taken to maintain blindness. The randomisation list was kept secretly by the study secretary who was responsible for allocating participants to either group. Any identifying information regarding the

training, such as receipts, were handled by the study secretary. Letters to participants contained reminders about blindness in bold type and participants were reminded about this at the beginning of any phone or face-to-face contacts during the study. Double-blinding, where participants are also kept uninformed of whether they are in the study or control group, was felt to be both unfeasible and unethical. To have run a "dummy" programme would have wasted participants' precious time and it would have been difficult to design a programme which appeared useful but was not. Also, it is quite possible that part of the benefit to carers of a training programme comes from meeting up with other carers, so a truly "placebo" programme would have been impossible to construct.

2.7 - Organisation of the training programme

During the initial meeting with the local authority, contact was made with the individual who organised any training for local foster carers and advice was sought about possible locations. A map and verbal directions were sent by this individual and this information was passed onto carers. For eight out of the ten training programmes, foster carers were given £3 per day to eat out locally at lunchtime and, on two occasions, food was provided in-house. Coffee and biscuits was provided morning and afternoon at all training programmes. Full reimbursement was made for any childcare or travel expenses.

2.8 - Content of the training programme

The format and content of the training programme was based on Communicating With Children: Helping Children in Distress (Richman, 1993) and were modified according to the findings of the pilot study. A fuller description of the training programme and pilot study can be found in Appendix 1. Training sessions ran for 5 hours per day from approximately 10.30 am to 3.30 pm with a one-hour break for lunch. The first two days were run consecutively with a follow-up day one week later. The trainer, an experienced social-worker/consultant (CD), presented some didactic material on aspects of child development and communication. Each section of didactic material was followed by whole and small group discussion and brainstorming of ideas. The purpose of this was to allow foster carers to contribute examples from their own experience. At the end of days 1 and 2, tasks were set and these were discussed at the beginning of the next training day.

Day 1 topics

- What is communication?
- How to be a good listener
- The difference between facts and feelings

An overnight task of observing and writing down how the carers' foster child/children communicate was set.

Day 2 topics

- Attachment and Separation
- Blocks to communication

A task for the following week was set of putting what had been learned so far into practice and reporting back to the next meeting.

Day 3 topics

- Small group discussion on what was learned and used in practice
- Practical exercises
- Support for the future

2.9 - Outcome measures

Figure 2.3 - Summary of measures

Domain	Measure	Source of information	Times measured
Child's Psychological State	Strengths and Difficulties Questionnaire (SDQ)	• Foster carer • Child's Teacher • Child	*Times 0 and 2*
	Attachment Disorder Scale (RAD)	• Foster Carer	*Times 0, 1 and 2*
	Self-esteem Scale	• Child	*Times 0 and 2*
Social	Fostering Breakdown rate	• Foster carer • Social Worker	*Time 2*
Carers' Attitudes	Attitudes Scale	• Foster carer	*Times 1 and 2*

The Strengths and Difficulties Questionnaire

The Strengths and Difficulties Questionnaire (SDQ) is a well-validated brief behavioural screening instrument for children aged 4-16 which asks about 25 attributes, some positive, others negative. The informant-rated SDQ can be completed by parents, foster carers or teachers and although scoring is identical, cut-off points based on normative samples differ between parents and teachers(Goodman, 1997). The self-report scale has been used in children aged 11 to 16 (Goodman et al., 1998), but this is the first study to use it in younger children. An attempt has been made, in the pilot study of a Department of Health Survey, to use the self-report scale in children as young as eight, but this was abandoned as it was found that they did not understand the questions. The author of the SDQ suspects that explaining the items to the child in an interview situation may mitigate this problem (Goodman, 1999, personal communication). The SDQ has 5 subscales of 5 items each: covering conduct problems; hyperactivity; emotional problems; peer problems and prosocial (caring, helpful) behaviour. It gives a "total difficulties score" which comprises of the total scores of four of the five subscales, excluding the prosocial questions, with a maximum score of 40: a higher score indicating greater difficulties. The SDQ has been scaled such that those scoring above the 90th centile in a normal population are classed as "abnormal" and those scoring between the 80th and 90th centile as "borderline". For a high risk population, it is suggested that "cases" are those in the borderline or abnormal categories (Goodman, 1997; Goodman et al., 1998).

The Reactive Attachment Disorder Scale

The Reactive Attachment Disorder (RAD) Scale is a parent/carer report scale which was developed for the study to measure Attachment Disorders. It has good internal consistency with a Cronbach's alpha of 0.70, test-retest reliability (repeat questionnaire completion after approximately one month) of 0.77 and inter-rater reliability (between parents) of 0.81. It has 17 items and gives an overall score, ranging from 0 to 51. As for the SDQ, it has been scaled such that those scoring above the 90th centile in a normal population are classed as "abnormal" and those scoring between the 80th and 90th centile as "borderline". For a high risk population, it is suggested that "cases" are those in the borderline or abnormal categories. The development of this scale, and an evaluation of the nosological validity of the attachment disorders, is described in an unpublished paper in Appendix 2. The term "attachment disorders" is used throughout the text to describe the syndromes classified in ICD-10 and DSM-IV and in order to distinguish them from "attachment states" or "attachment problems". These latter terms are used to describe characteristics of normal infants after classification using the Strange Situation Procedure (Ainsworth, 1979). There is insufficient research evidence about attachment disorders to determine their relationship, if any, to attachment styles and it is important not to confuse the terms. The term "disorder" is not ideal, as it implies a disease state, whereas it is probable that these syndromes are at the extreme end of a normal spectrum. It is used, however, in order to avoid the impression that direct observation of the children has been made, or that there has been an attempt to assess the *style* of attachment of the child/foster carer dyad.

The Modified Rosenberg Self-esteem Scale

The Modified Rosenberg Self-esteem scale is an eight item modification of the Rosenberg Scale for self esteem which has been used and validated by Warr and Jackson(Warr and Jackson, 1985). It gives a total score of 40, with a high score indicating a high self-esteem. As this questionnaire had not previously been used in children of this age, results were compared with a normative population (see below).

Breakdown rate

The breakdown rate of foster placements was measured by asking local authority fostering and adoption officers, by telephone, about the status of each placement nine months post-training. These individuals were thought to be the best source of

information on the status of placements because they have an overview of fostering services and therefore were less likely to be biased in their assessment of whether or not a placement had been successful than either foster carers or individual social workers. A "breakdown" was defined as a move of placement for the child which went against the original social work plan. The other options were "intact", where there had been no change in the placement status, or "positive planned move", where the child had gone to a different placement according to social work plans. Each family was coded as having had a "breakdown" if there had been any breakdowns in any of the placements in that family over the nine months since first data collection. Because some families had multiple placements, the overall prevalence of placement breakdown in the sample cannot be measured using this method, but allows a simple measure for comparison of groups.

Foster carers' attitudes

The Attitudes Scale was developed for the study to investigate foster carers' attitudes to the training and how it might have affected their care of the child. It contains questions about the child they look after, their care of the child and questions about the effect of the training on their care of the child. A factor analysis (see Chapter 4.3) suggested three main factors from which subscales were developed. One subscale was concerned with the foster carers' confidence about his/her parenting of the child and was called the "Foster Carer Confidence Scale", the second was comprised of negative statements about the child and was called the "Foster Carer Negativity Scale" and a third was concerned with attitudes towards the training itself and was called the "Perceived Benefit From Training Scale". Possible scores for each of these subscales range from 0 to 18.

Background information about participants

Demographic information about foster carers was collected by questionnaire at time 0 (see Appendix 4). Because some foster carers had no other occupation outside the home while others did, Occupational Social Class was not used in the analyses. Instead, Carstairs Scores were used. These are derived from the means of four variables of small area census data: car ownership, male unemployment, over crowding and occupational social class which are calculated for each post code sub-sector. They give a summary measure of relative deprivation or affluence in different postcode areas called Deprivation Categories (DepCat) which ranges from 1 (most affluent) to 7 (most

deprived) (McLoone, 1997) . While being more useful in this context than Occupational Social Class, the DepCat has the drawback of being based on area, not on the individual. It is quite possible, though unlikely, to have a member of social class 1, say a University Professor, living in a post-code area classified as DepCat 6. This level of accuracy was judged to be adequate for this study because the primary use of the DepCat would be in comparing randomised groups in which such inaccuracies would be expected to be balanced across the groups. Background information about children was collected from social workers using a telephone checklist (see Appendix 4) who were advised of the telephone call in advance so that social work notes could be consulted.

Information about training

At time 2 (nine months post-training) local authority fostering and adoption officers were sent a short questionnaire about training and support groups which had been offered to foster carers during the study. Foster carers were also asked to complete a short questionnaire about any training and support groups they might have attended over the previous nine months.

2.10 - The School Survey – a normative analysis of attachment disorders and self-esteem

A survey, from now on called the "School Survey" was carried out with children in Glasgow schools in order to obtain normative data on the Reactive Attachment Disorder Scale and the Modified Rosenberg Self-esteem Scale as neither of these instruments had been used previously in this age group.

Four Glasgow schools, three primary and one secondary, three non-denominational and one Catholic, were chosen in an attempt to reflect the socio-economic and religious status of children in foster care. Meetings were held with head- and class teachers from each school to explain the study and organise practicalities. Each school was given expenses of £50 to cover any administrative costs.

A letter containing a copy of the RAD scale, was sent to the parent(s) of each child between the ages of 5 and 16, with an information sheet and consent form (see Appendix 5) asking if they would permit their child to complete the self-esteem scale at school. Parents had three options: 1. full participation in the study, 2. they could decide to complete the RAD scale about their child but decline to allow their child to complete the self-esteem scale, or 3. they could choose not to take part at all. A second mail-out

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was sent to those who did not make contact after two weeks. The three primary schools allowed the researchers to organise and mail the questionnaires, whereas the secondary school wished to organise this themselves and were provided with all necessary materials.

Two weeks after the second mail-out, self-esteem scales were distributed to each class teacher with a list of those children who were taking part. It had been emphasised at meetings that teachers could explain questions to children, but not help them decide on their answers. Once all class teachers had supervised completion of the questionnaires, they were mailed back to the research team.

The response rate of the school survey was very poor at only 35% and there are various possible reasons for this. All of the schools were in deprived inner-city areas and parents were not used to surveys such as these. Some parents thought their child had been picked out specially because of known behaviour problems and perhaps the two-stage nature of the survey (parents completing a questionnaire about the child and giving consent at the same time for the child to complete a questionnaire in class) may have put off potential participants. In addition the "opt-in" nature of the recruitment process, while ethically preferable, undoubtedly reduced the rate of participation. A survey with such a low response-rate is unlikely to reflect the general population as non-responders are more likely to have problems than participants. However, the final sample of school children had a low mean deprivation category and as the purpose of the survey was to recruit a sample reflecting the socio-economic status of children in foster care, it was decided to use the data from the school sample with the understanding that the information it provides is limited.

2.11 - Data analysis

Data analysis was designed to address the aims of the study, i.e. to provide a description of the sample including the emotional and behavioural functioning of children at *time 0*, to examine any associations with past abuse and neglect and to evaluate the effect of the training programme on emotional and behavioural functioning and the rate of breakdown of placements.

Because the of its size and recruitment rate, the sample may not approximate the general population. Therefore, a descriptive analysis of the sample was made at *time 0* and no attempt was made to develop a predictive model of emotional and behavioural problems

in foster care. In addition, because the study was designed as a randomised controlled trial, a sample characteristic was only measured if there was evidence from previous studies that it might have an effect on the outcome if it failed to be balanced in the randomisation.

An attempt was made to collect data from both male and female foster carers but in 85 families only the female foster carer actually completed questionnaires. Conversely, in six families the male carer was the sole questionnaire respondent. Clearly, it would be misleading to include more than one questionnaire on the same child in any analysis, therefore all analyses used the data from female carers plus the six male carers who were the only members of their family returning questionnaires. All data analyses were carried out on STATA statistical software.

Data cleaning

Distributions of all continuous variables were plotted. Where the distribution deviated markedly from normality, a log transformation was made before entering the variable into further analyses. Tabulations of categorical variables were made. Any "outliers", i.e. observations which differ greatly from the rest, were investigated by looking at the raw data to check for any errors.

Descriptive analysis

Although data was gathered on 182 children from 121 families, there were some children on whom the data was not complete, therefore the total sample for any given questionnaire may be less than 182.

The scores of the three informants (foster carers, teachers and children) of the Strengths and Difficulties Scale (SDQ) were plotted against one another and correlations between scores examined. A categorical analysis was also carried out to examine the proportions of children classified as "cases" on the SDQ by each informant, using the cut-off points recommended by Goodman (Goodman, 1997). The SDQ ratings of foster carers were also plotted against foster carer ratings of children on the Modified Rosenberg Self-esteem and Reactive Attachment Disorder scales. The numbers and percentages of children falling into the "normal", "borderline" and "abnormal" categories on the SDQ and its subscales were tabulated for foster carers', teachers' and children's ratings.

The distributions of Reactive Attachment Disorder Scale scores for children in foster care and in the school population were plotted and compared by t-test. A categorical analysis was also carried out using a similar method to that used by Goodman (Goodman, 1997) in which the 10% of the school sample falling above the 90th centile were taken as having "abnormal" scores, the 10% between the 80th and 90th centiles as having "borderline" scores and those scoring below the 80th centile as "normal".

Associations with abuse or neglect

Associations between a past history of abuse or neglect and scores on the SDQ, RAD and self-esteem scales were tested first using t-tests, then simple linear regression taking potential confounding variables into account. For the regression analyses, potential confounders were entered into the regression model one by one. If the magnitude of the change in questionnaire score was markedly altered by the presence in the model of the potential confounder, it was used in the final model. If not, it was left out.

Presentation of tables

For all regression analysis, the unadjusted means or odds with and without the variable of interest (for example, the mean score on the Strengths and Difficulties Scale with and without emotional abuse) were presented alongside the difference (or ratio) between these scores, adjusted for potential confounding variables, with the 95% confidence interval and p value. In all tables, p values were rounded to two decimal places unless smaller than .01, when they are presented in full. There was no interpretation made of the amount of variance apparently explained by each component of the final regression model for the reasons mentioned above.

The Huber correction

A Huber correction was made to all regression analyses. The purpose of the Huber correction is to take into account the effect of intercorrelation between children within families and was necessary in this study because the unit of randomisation was the family, but the unit of analysis was the child. It was assumed that children living within one foster family were likely to be more similar than those in different families and could not, therefore be dealt with as independent participants. The Huber correction estimates the degree of similarity between children within families and increases the standard error and p value of the estimation to account for this. An added advantage of

using a Huber correction is that the usual requirement that the distribution of variables approximates normality does not apply. If certain variables cannot be easily transformed (for example by taking the natural log of the observations) to produce a normal distribution, they can be entered into a regression analysis using a Huber correction in the untransformed form without the estimation being affected(Huber, 1967).

Analysis of the trial

The difference between the mean questionnaire scores in the study group and control group were initially analysed using t-tests. For a very large trial, this would be a sufficient analysis because an assumption could be made that the two groups were identical pre-training. However, for this trial, the method suggested by Pocock (p. 216-218) (Pocock, 1983) was used; in a trial of this size there is an argument for taking pre-trial scores into account, in case of slight differences which would affect the precision of the results, and for taking into account variables which were thought to have been imbalanced at baseline and could potentially confound the relationship between being in the study group and outcome.

A variable called "change" was generated which measured the difference in scores before and after the training and the differences in the magnitude of this change between the control and study group was tested by t-test. Questionnaire scores immediately after the training were analysed using regression, taking into account the group (control or study) and the pre-training scores. Those baseline variables which appeared to be imbalanced between the study groups after randomisation and where there was a likelihood of confounding, were entered into the regression in turn and were retained in the model if they had an impact on the size of the effect of being in the study group.

Chapter 3 - Baseline results (time 0)

This chapter describes the sample of children in foster care and their families. In particular, emotional and behaviour problems are examined and their associations with abuse and neglect.

3.1 - How representative is the sample?

Two pieces of information were available on all those whose names were supplied by social work departments; deprivation category, derived from the post code and the rate of breakdown of placements in families during the period of the study. Data on the status of placements at the end of the study period was provided by local authority social workers.

Table 3.1 - Characteristics of participating and non-participating families

	Deprivation Category of foster carers				*Placements ending in breakdown*		
	M	sd	n[a]	p*	%	n[b]	p*
Participants	4.0	1.2	147	0.2	19	24	0.6
Non-participants	4.2	1.2	132		21	25	

* Statistical significance of comparison between participants and non-participants

[a] number in total sample of participants or non-participants on which information available

[b] number of placements which broke down

There was no significant difference in the deprivation category or rate of breakdown of placements in the group who participated in the study compared with foster carers in general.

3.2 - Characteristics of the sample

Table 3.2 - Sample characteristics

Children n=182
Mean age 11 (range 5-16)
59% male: 41% female
72% in any previous care placement
26% previously in residential care; 26% of these more than once (range 1-3)
72% previously in foster care (range 1-10). 52% of these in >1 and 8% in >5 previous placements
181 white children; one black child in study, looked after by white foster carers
7% have a physical disability
28% have a learning disability (87% of these described as "mild")
35% have siblings in the same placement
69% came into care because of abuse or neglect
16% came into care because of parental mental illness
5% came into care because of parental death
Mean time spent with birth parents 6.9 years (SD 3.8; range 0-16)
Mean time spent with present foster carers 2.5 years (range 1 month to 16 years)
22% have no contact with birth parents, 34% have contact every two weeks or less and 41% once a week or more
Foster carers n=121
Mean age of foster mothers 45 (range 28-63 years)
Mean age of foster fathers 47 (range 31-68 years)
99.9% white-one black foster carer looking after, with white partner, a white child
Mean DepCat 4 (SD 1.2; range 1-7)

94% have biological children

64% have biological children living at home

29% have a biological child living at home younger than index foster child

89% have had previous training

Birth parents n variable

52% (n=50)of mothers were known to have suffered from mental illness or learning disability; 20% depression; 41% affective disorder; 17% schizophrenia and 29% learning disability

28% (n =18) of fathers were known to have had mental illness or learning disability

57% (n =63) of mothers were known to have abused drugs or alcohol

32% (n =29) of mothers had a known history of criminality

51% (n =28) of fathers had a known history of criminality

63% (n =78) of parents were unemployed; 18% SES 5; 16% SES 3 or 4; 3% SES 2

The children

As can be seen from Table 3.2, the mean age of children is 11 years, ranging from 5 to 16. Fifty-nine percent are male. They have spent an average of 7 years living with birth parents and have known their present foster carers an average of two and a half years. Twenty-six percent have previously been in residential care and, of these, twenty-six percent have experienced more than one residential placement. Seventy-two percent have been in previous foster placements and, of these, 52% have been in more than one previous foster placement and 8% in 5 or more previous foster placements. Nearly 70% (69%) came in to care originally because of abuse or neglect, 16% due to parental mental illness and 5% due to parental death. Seven percent have a physical disability and 28% a learning disability, although 87% of these learning disabilities were described as mild. Thirty-five percent have siblings in placement with them. Twenty-two percent have no contact with birth parents, 34% have contact every two weeks or less and 41% once a week or more.

The foster carers

The mean age of foster mothers is 45 and of foster fathers, 47 years. The mean social class of the carers is the same as for the general population of Scotland (Depcat 4) and they have fostered an average of 24 children previously. Ninety-four percent have biological children, 64% have such children living at home and 29% have a biological child younger than the index fostered child. Eighty-nine percent had had some form of training prior to the study and, in particular, 44% had taken part in the National Foster Carer Association training programme "Choosing to Foster", which is usually run during assessment of foster carers.

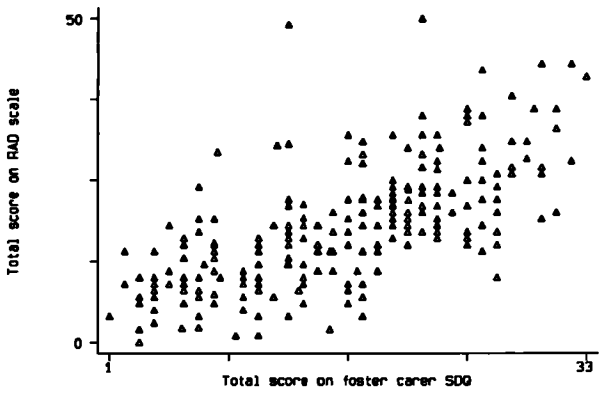
The birth parents

Fifty-two percent of birth mothers were known to have suffered from mental illness or learning disability: 20% depression; 41% affective disorder; 17% schizophrenia and 29% learning disability. Fifty-seven percent of mothers were known to have abused drugs and 32% had been involved in criminal activity. Information on birth fathers was scant and numbers were small, as can be seen from Table 3.2. Twenty-eight percent had mental illness or learning disability, 57% were known to have abused drugs or alcohol and 51% had been involved in criminal activity.

3.3 - The correlation between outcome measures

As certain outcome measures were being used for the first time in this study, or in this age-group, it was important to test for overlap between the domains covered by each scale. The RAD Scale for attachment disorders was highly correlated with the carer report SDQ (0.65, $p<0.0001$).

Figure 3.1- The correlation between foster carers' ratings of children on the Reactive Attachment Disorder (RAD) Scale and foster carers' ratings of children on the Strengths and Difficulties Questionnaire (SDQ)



Seventy percent of "cases" on the carer report SDQ were also "cases" on the RAD, while 82% of those categorised as normal on the SDQ were also normal on the RAD (χ^2=42.5; p<0.0001).

There was a smaller correlation between the foster carer and teacher SDQ (0.38, p<0.0001). However, the correlation between the carer and child SDQ was good (0.54, p<0.0001).

Figure 3.2.A -The correlation between teacher ratings of children on the Strengths and Difficulties Scale (SDQ) and foster carers' rating of children on the SDQ

Figure 3.2.B -The correlation between child ratings of themselves on the Strengths and Difficulties Scale (SDQ) and foster carers' rating of children on the SDQ

Figure 3.2.A

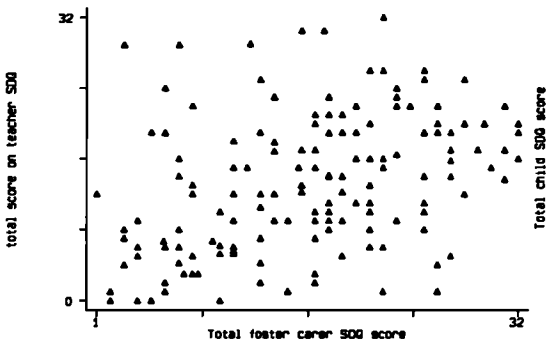
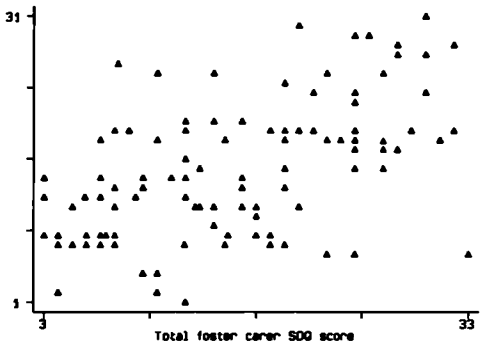


Figure 3.2.B



Seventy-one percent of "cases" on the carer SDQ were also cases on the teacher SDQ, while 65% of those categorised as normal on the carer SDQ were also classed as normal on the teacher SDQ (χ^2= 19.6; p<0.0001). Sixty percent of "cases" on the foster carer SDQ were also "cases" on the child SDQ, while 77% of those categorised as normal on the foster carer SDQ were also categorised as normal on the child SDQ. Again the correlation with the teacher SDQ was smaller (0.37, p<0.0001). Seventy percent of those who were "cases" on the child SDQ were also "cases" on the teacher SDQ and 60% of those who were categorised as normal on the child SDQ were also normal on the teacher SDQ.

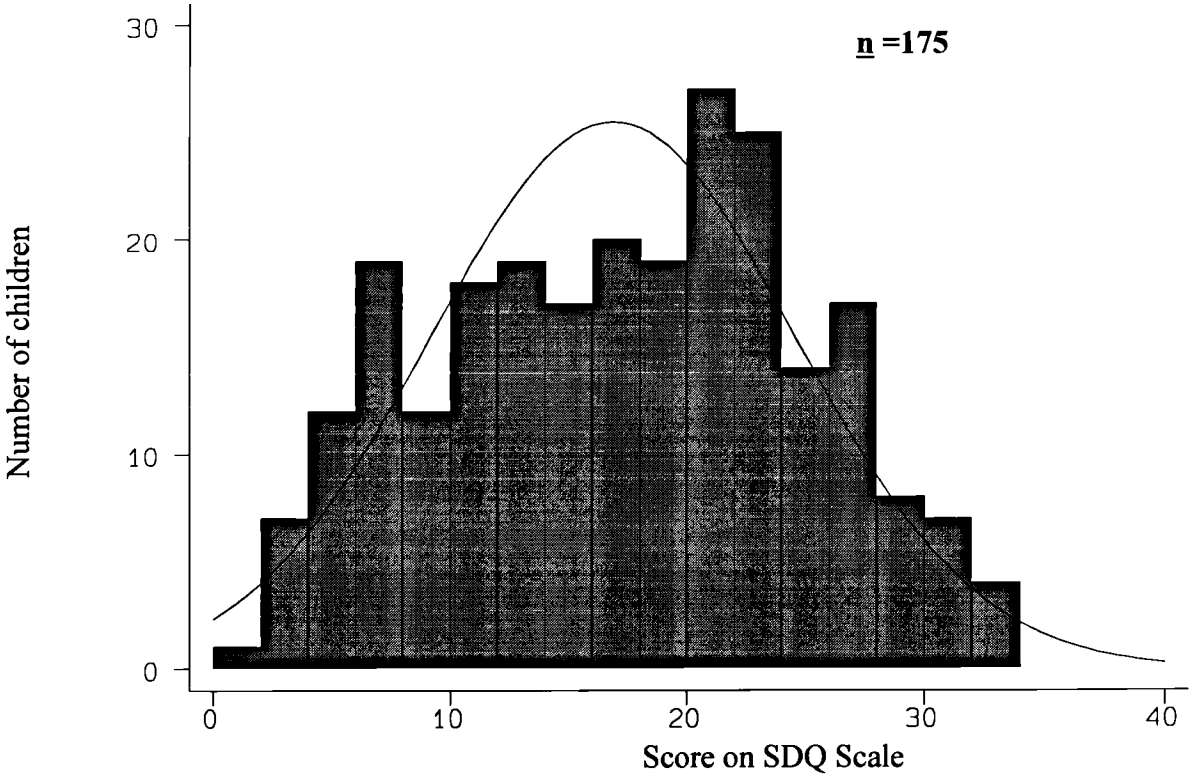
There was a small negative correlation between the total score on the self-esteem scale and the total difficulties score on the foster carer SDQ (-0.2, p=0.02) and teacher SDQ (-0.3, p=0.01), and with the total difficulties score on the child SDQ (-0.5, p<0.0001).

3.4 - Emotional and behavioural problems as measured by the Strengths and Difficulties Scale

Prevalence of emotional and behavioural problems in the sample

As the number of male carers responding was low (n =70), in the following analyses, results are presented for female carers and the six male carers who were sole family respondents only. Total scores on the Strengths and Difficulties Scale (SDQ) were approximately normally distributed:

Figure 3.3 - Distribution of foster mothers' ratings of children on the Strength and Difficulties Scale



As can be seen in Table 2, 64% of children in the sample fall into the abnormal or borderline categories and can be described as being psychiatric cases. Fifty-four percent of the total sample fall into the abnormal or borderline categories on the hyperactivity subscale, 45% on the emotional problems subscale, 66% on the conduct problems subscale, 63% on the peer problems subscale and 38% on the prosocial scale.

Table 3.3 - Foster mothers' ratings of children on the Strengths and Difficulties Questionnaire (SDQ)

	SDQ Category								
	Total Sample	*Normal*		*Borderline*		*Abnormal*		*Total "cases"*	
SDQ Subscale	*(n)*	*(n)*	*%*	*(n)*	*%*	*(n)*	*%*	*(n)*	*%*
Total SDQ Score	175	63	36	13	7	99	57	112	64
Hyperactivity	175	81	46	15	9	70	45	94	54
Emotional problems	175	96	55	20	11	59	34	79	45
Conduct problems	175	59	34	20	11	96	55	116	66
Peer problems	175	64	37	16	9	95	54	111	63
Prosocial behaviour	175	106	62	30	17	36	21	66	38

The results on the teacher SDQ broadly agree with the foster mothers' results, the only marked differences being that teachers report fewer emotional problems and peer problems, but more problems with prosocial behaviour:

Table 3.4 - Teachers' ratings of children on the Strengths and Difficulties Questionnaire (SDQ)

	SDQ Category								
	Total Sample	*Normal*		*Borderline*		*Abnormal*		*Total "cases"*	
SDQ Subscale	(n)	(n)	%	(n)	%	(n)	%	(n)	%
Total SDQ Score	120	48	40	25	21	47	39	72	60
Hyperactivity	120	58	48	15	13	47	39	62	52
Emotional problems	120	106	88	6	5	8	7	14	12
Conduct problems	120	57	48	22	18	41	34	63	52
Peer problems	120	72	60	18	15	30	25	48	40
Prosocial behaviour	120	57	49	29	25	31	26	60	50

Children give themselves lower ratings than do parents or teachers. The only exceptions are emotional problems, in which their ratings are more similar to foster carers than to teachers and peer problems, where their ratings are similar to teachers.

Table 3.5 - Children's ratings of themselves on the Strengths and Difficulties Questionnaire (SDQ)

	SDQ Category								
	Total Sample	*Normal*		*Borderline*		*Abnormal*		*Total "cases"*	
Subscale	(n)	(n)	%	(n)	%	(n)	%	(n)	%
Total SDQ Score	114	65	57	25	22	24	21	49	43
Hyperactivity	114	71	62	13	11	30	26	43	37
Emotional problems	114	79	69	11	9	24	21	35	30
Conduct problems	114	64	56	17	15	33	29	50	44
Peer problems	114	71	62	25	22	18	16	43	38
Prosocial behaviour	114	97	85	11	10	6	5	17	15

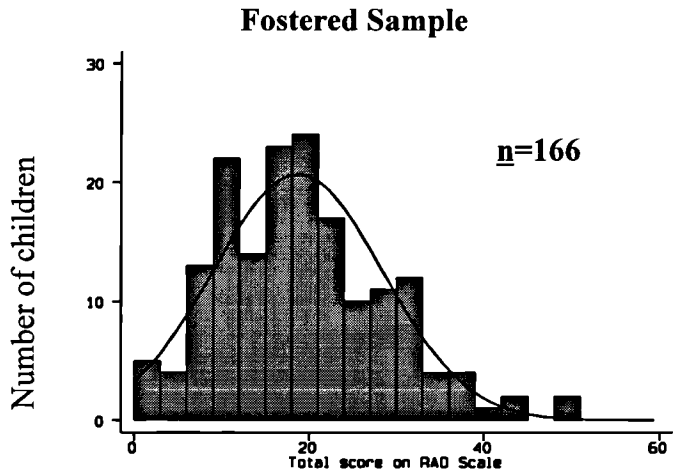
3.5 - Attachment Disorders as measured by the RAD Scale

Comparison of fostered children with children from the School Survey

As described in Chapter 2, section 2.10, the School Survey was carried out in an attempt to provide normative data for the RAD and the Modified Rosenberg Self-esteem Scale. Unfortunately, this survey had a very poor response-rate of only 35% so analyses based on it must be viewed with caution. The mean deprivation category for the sample of school children was 6. The lowest possible deprivation category is 7 in a range from 1 to 7, so the school sample is a very deprived group of children.

When compared with the sample of 251 Glasgow school children from the School Survey (see methods section), the mean scores on the RAD scale were higher in the fostered group, although a few children had very high scores in both groups.

Figure 3.4 - Foster carers' ratings of "fostered" children on the Reactive Attachment Disorder (RAD) Scale and parents' ratings of children in the school on the RAD Scale



School Sample

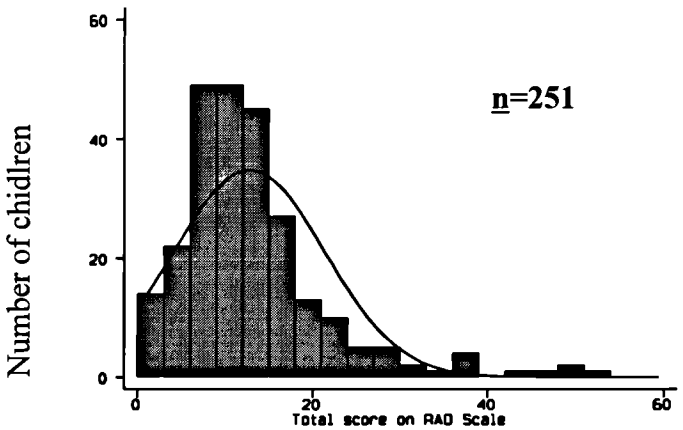
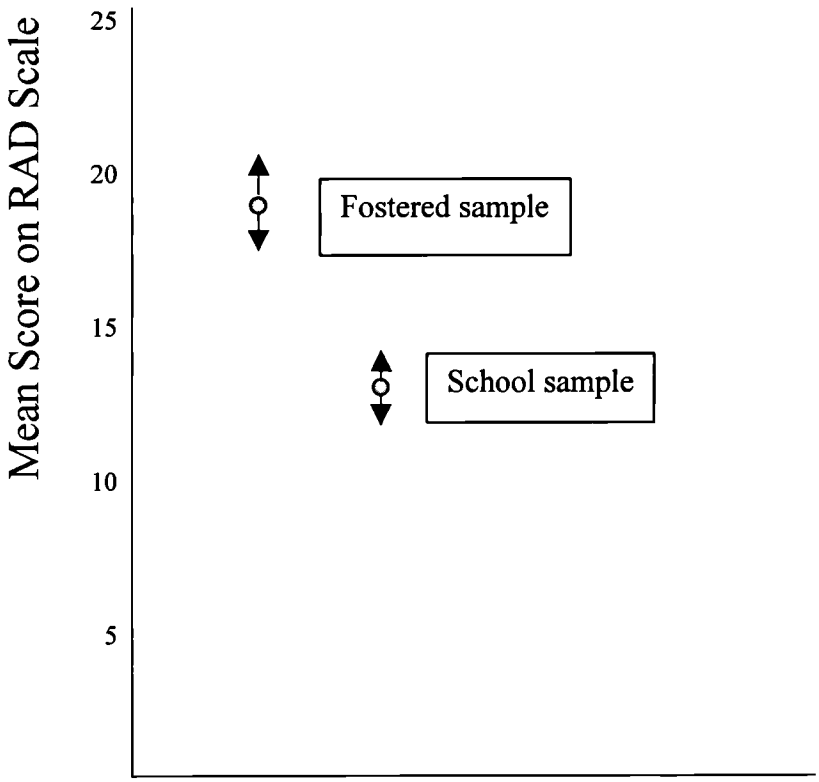


Figure 3.5 - Statistical difference between parents' rating of "school" children on Reactive Attachment Disorder Scale (RAD) and foster carers' rating of "fostered" children on RAD Scale



As can be seen from Figure 3.5, there was a significant difference in scores on the RAD scale between the school and fostered samples. The mean score for the fostered sample was 18.6 (n =166; 95% CI 17.15-20.14) and for the school population, 12.74 (n =251; 95% CI 11.66-13.81). Due to the skewed distribution of the school sample, log transformation was carried out prior to t-testing (t=-6.26; 413df; p<0.0001).

Prevalence of attachment disorders in the sample

The mean score of the sample of school children was 13 (out of a maximum possible score of 51). The provisional categories shown below have been chosen so that roughly 10% of children in the school sample have "borderline" scores (those between the 80th and 90th centiles) another 10% have "abnormal" scores (above the 90th centile):

Category	Score on RAD Scale
Normal	0-17
Borderline	18-23
Abnormal	24-51

Using the method described in the Chapter 2 section 2.9, the proportion of children falling into the borderline category in the sample of fostered children was 23% and into the abnormal category, 28%, giving an overall prevalence of "cases" of 51%.

3.6 - Associations between emotional and behavioural functioning and previous abuse and neglect

According to social workers, 93% of the children in the sample had suffered some form of abuse or neglect in the past: 39% of the children in the sample had been physically abused, 28% sexually abused, 77% emotionally abused and 75% neglected.

Associations between the various forms of abuse or neglect and total SDQ scores were first analysed by t-test, then by simple linear regression. Potential confounding factors were then entered one by one into a simple linear regression analysis. If the magnitude of the change in questionnaire score was markedly altered by the presence in the model of the potential confounder, it was used in the final model. If not, it was left out. In the analysis of foster carers' SDQ scores, sex and age of the child were retained. In the analysis of teachers' SDQ scores, age of the child and deprivation category of the foster family were retained.

Associations between abuse or neglect and foster carers' SDQ scores

There were no significant associations between the total score on the SDQ and physical abuse or neglect. There was, however, a significant association between the total score on the SDQ and emotional abuse (t=2.27; 139 df; p=0.047). This was still significant after controlling, in a regression analysis (table 3.6), for the child's age and sex (p=0.001). There was also a significant association between the total score on the SDQ and sexual abuse (t=2.43; 139df; p=0.02). This was still significant after controlling for the child's age and sex (p<0.001).

Table 3.6 - The association between previous abuse or neglect and foster carers' ratings of children on the Strengths and Difficulties Scale, taking sex and age of the child into account

	Mean SDQ score			
	Unadjusted SDQ score with previous abuse/neglect	*Unadjusted SDQ score with no previous Abuse/neglect*	*Difference in SDQ score adjusted for age and sex**	*p value (Wald test)*
Physical abuse	17.1	16.6	-1.5(-3.1, .08)	0.06
Sexual abuse	19.4	15.8	-2.7(-3.9, -1.4)	<0.0001
Neglect	17.4	14.8	-1.5(4.5, 1.5)	0.40
Emotional abuse	17.7	14.1	-2.2(-3.5, -.99)	0.001

Mean difference in SDQ score (95% confidence interval) with or without previous abuse/neglect adjusted in simple linear regression analysis for age and sex of the child.

Previous experience of sexual abuse was associated with high scores on the emotional (t=2.97; 147df; p=0.004) and peer problems subscales (t=3.98; 145df; p=0.0001), but not on the conduct, hyperactivity or prosocial behaviour subscales of the SDQ. There were no significant associations between emotional abuse and subscale scores.

Associations between abuse or neglect and teachers' SDQ scores

The trends were similar for the teacher report SDQ, but only the association between emotional abuse and SDQ score was statistically significant (p=0.004).

Table 3.7 - The association between previous abuse or neglect and teachers' ratings of children on the Strengths and Difficulties Scale, taking sex and age of the child into account

	Mean SDQ score					
	Unadjusted SDQ score with previous abuse/neglect		*Unadjusted SDQ score with no previous Abuse/neglect*		*Difference in SDQ score adjusted for age and DepCat **	*p value (Wald test)*
n=132	M	sd	M	sd		
Physical abuse	12.7	8.6	13.2	6.6	-1.8 (-4.5, .8)	0.19
Sexual abuse	14.6	8.0	12.5	7.2	-2.1 (-5.2, .3)	0.26
Neglect	12.9	7.1	14.1	8.8	2.2 (-1.2, 5.5)	0.20
Emotional abuse	14.2	7.2	8.2	6.0	-4.5 (-8.0,-1.0)	0.004

Mean difference in SDQ score (95% confidence interval) with or without previous abuse/neglect adjusted in simple linear regression analysis for age of the child and Deprivation category of the foster family.

Associations between abuse or neglect and foster carers' scores on the RAD scale

There was a significant association between attachment disorders as measured by the RAD scale and sexual abuse (t=2.52; 133df; p=0.01) and this remained significant after controlling, in a simple linear regression analysis, for the child's age and sex (n=139; p=0.02).

Table 3.8 - The association between previous abuse or neglect and foster carers' ratings of children on Reactive Attachment Disorder Scale, taking sex and age of the child into account

	Mean RAD score					
	Unadjusted RAD score with previous abuse/neglect		*Unadjusted RAD score with no previous Abuse/neglect*		*Difference in RAD score adjusted for age and DepCat **	*p value (Wald test)*
n= 135	M	sd	M	sd		
Physical abuse	18.8	9.8	17.8	9.7	-1.6 (-4.9, 1.5)	0.30
Sexual abuse	21.4	10.5	16.9	9.1	-4.1 (-7.5, -.7)	0.02
Neglect	18.7	9.6	16.6	10.1	.2 (-1.3, 1.7)	0.83
Emotional abuse	18.1	9.0	18.3	11.8	1.2 (-2.6, 4.7)	0.56

Mean difference in RAD score (95% confidence interval) with or without previous abuse/neglect adjusted in simple linear regression analysis for the child's age and sex.

3.7 - Associations between emotional and behavioural functioning and previous placements

There was a significant increase in total score on the SDQ with increasing numbers of previous foster placements (simple regression; n=107; p=0.04). There was no association between SDQ score and the number of previous residential placements (t=1.54; 146df; p=0.12).

3.8 - Associations between emotional and behavioural functioning and characteristics of birth parents

There was a significant association between high SDQ scores and criminality of the birth father (t=2.2; 40df; p=0.03), but no significant associations with maternal criminality, parental social class, parental mental illness or parental substance abuse.

3.9 - Self-esteem

Comparison between "completers" and "non-completers" of self-esteem scale

Self-esteem was measured by the Modified Rosenberg Self-esteem Scale, which is an eight-item self-report scale with a maximum score of 40(Warr and Jackson, 1985). Because of difficulties in obtaining birth parents' consent to see children, only 76 (43%) could be interviewed at home. Table 10 compares those children who completed a modified Rosenberg Scale and those who did not.

Table 3.9 - Comparison between families of children who completed modified Rosenberg Scale and those who did not

Baseline Characteristics						
	Completed scale		*Did not complete scale*		*Statistical Test*	
	n=76		*n=100*			
	M	*sd*	*M*	*sd*	*t*	*p*
Age of child	11.5	2.9	11.0	3.4	-1	0.2
Number of previous foster placements	2.7	2.7	2.1	1.4	-1.9	0.06
Length of time foster carers have known children (months)	24	26	32	30	2.16	0.03
	n	*%*	*n*	*%*	χ^2	*p*
Contact with birth parents once/month or less	38	43	54	54	2.4	0.12
Male children	57	51	42	33	8	0.005
History of sexual abuse	29	33	21	20	4.5	0.03
History of physical abuse	35	40	41	38	0.04	0.8
History of emotional abuse	68	77	84	78	0.04	0.8
History of neglect	66	76	79	75	0.01	0.9

Three children were unable to complete the self-esteem scale, due to problems with concentration or understanding, but did complete other parts of the data collection. Those children who were interviewed were similar to those who were not interviewed in age, number of previous foster placements and contact with birth parents, but had known their foster carers less time, were more likely to be female and to have been sexually abused than those not interviewed.

Comparison of self-esteem in children in foster care and children from local schools

The Modified Rosenberg Self-esteem Scale was also completed by 239 (73%) of the sample of Glasgow school children. Those school children who did not complete the self-esteem scale were older than those who did (14 vs 10 years; t= -3; p=0.003) but there was no difference in sex distribution of children or social class of parents.

There was a small but significant difference in self-esteem between the school sample (M 31; 95% CI, 30-32) and the foster care sample (M 28; 95% CI, 27-29) as seen in Table 3.10 and Figure 3.6 .

Figure 3.6 - Distributions of self-esteem scores in school and fostered children

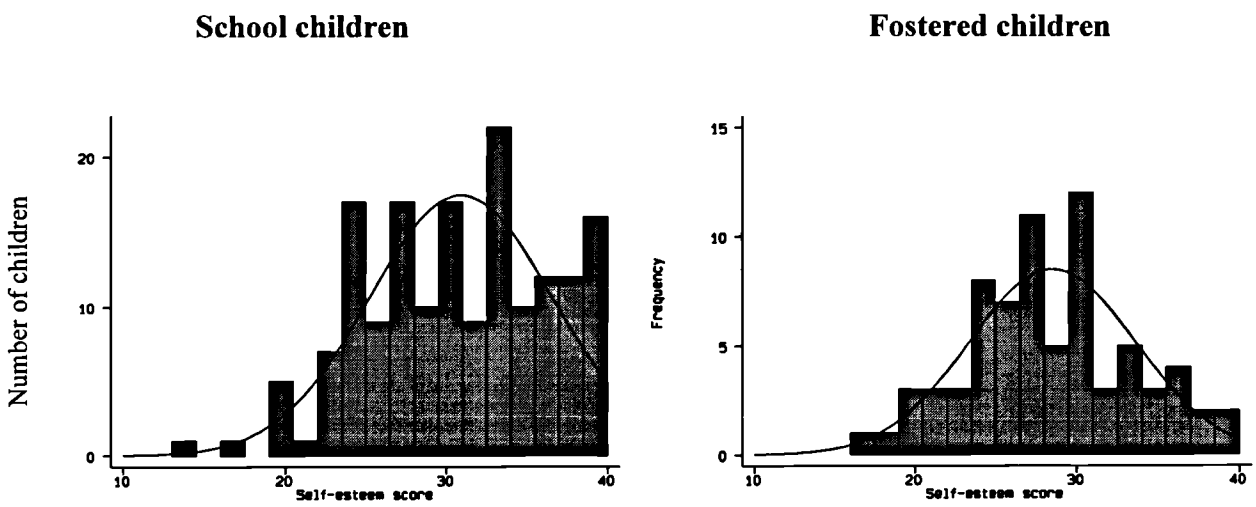


Table 3.10 - Self esteem in school children and fostered children

	M	sd	n	p (Two-sample Wilcoxon Rank-Sum Test)
School	31	5.7	166	0.002
Fostered	28	5.1	73	

There was no association between the sex of the child respondent and self-esteem in either the school or fostered group but, in the school population, lower self-esteem was associated with lower socio-economic grouping (simple regression; n=164; difference in self-esteem score 0.06; p=0.015).

There were no significant associations, as tested by t test and regression analysis, controlling for age and sex, between previous abuse or neglect and self-esteem in fostered children.

3.10 - Discussion

Representativeness of the sample

Among those offered entry to the study, there were no significant differences between those who took part with those who did not in terms of social class (as measured by deprivation category) and the rate of breakdown of placements. This suggests that the sample is reasonably representative of foster carers in Scotland as a whole. However as only two variables, deprivation category and breakdown rate of placements, were available, it is possible that more subtle differences exist between the groups. Some such potential differences, for example a better relationship with social workers in those who took part, could influence the carers' response to training and are impossible to measure. It is well recognised that those who do not participate in research are likely differ from those who do in various ways including motivation and attitudes towards health (Hennekens and Buring, 1987). If major differences do exist between those who took part and those who did not, therefore, those who took part are likely to be doing better in general and the results may give a more optimistic picture of the emotional and behavioural problems in children in foster care.

Characteristics of the children

This sample of children in foster care has a wider age range than in some previous studies (McCann et al., 1996; McIntyre and Keesler, 1986; Hellinckx and Grietens, 1994) and because no distinction was made, in inclusion criteria, between long-and short-term placements, the type of placements are also wide-ranging. Some children had spent virtually all of their lives in foster care, while other placements were very recent. Emergency placements are not represented, however, due to the inclusion criterion that there should be a plan for a child to be in care for a further year after the start of the study. The finding that nearly seventy percent of children came into care initially because of abuse or neglect and that 93% had suffered abuse or neglect at some time in the past confirms the view which has been recently recognised politically that children in care are a particularly vulnerable group(Utting et al., 1998). Nearly three-quarters had been in care previously, but the number of previous placements was less than in previous studies(McCann et al., 1996), which may reflect the current social work awareness of the problems of placement breakdown and efforts to minimise this(Berridge and Cleaver, 1987).

Characteristics of the foster carers

The social class profile of foster carers in this sample appears to be representative of the Scottish population but, at a mean age of 45 years, they are considerably older than parents of this age-range of children in the general population (37 years is the average age of female parents of children age 5-16; General Register of Scotland, 1999). The finding that fewer than one in ten have no children of their own is identical to that of the recent survey of Scottish foster carers by Triseliotis et al(Triseliotis et al., 1998). The fact that nearly thirty percent have biological children living in the home who are younger than the children they are looking after is of interest because this has been shown in previous studies to be associated with placement breakdown(Parker, 1966; Berridge and Cleaver, 1987). Nearly 9 out of 10 carers have had previous training, but often the bulk of training is offered to foster carers during assessment and preparation of the family and before a child has been placed.

Characteristics of the birth parents

Little has been written about birth parents of children looked after in foster care. The exception was Fanshel who, in the early seventies, showed that the adjustment of

transracially placed children in foster care was associated with the level of disability of the birth mother(Fanshel, 1972). It is likely that the characteristics of birth parents have changed in the nearly four decades since this piece of research was carried out; it is widely accepted that the threshold for taking children into care is much higher now than in the past. Although the majority of birth parents were unemployed, from the high prevalence of parental mental illness, substance abuse and criminality it seems highly unlikely that children are being taken into care nowadays for reasons of poverty alone. It is important, however, not to assume that the problems of birth parents have necessarily caused the child to be taken into care as some of these problems could be the result, rather than the cause, of the removal of their child.

Outcome measures

The main questionnaires used in the study were chosen to assess emotional and behavioural problems in their broadest sense, but also to focus on attachment disorders and self-esteem because these were areas which, from the literature, seemed likely to be affected by improved communication in the foster home. The concept of attachment disorders remains controversial and although attachment disorder categories have been included in the psychiatric classification systems(World Health Organisation, 1992; American Psychiatric Association, 1994), their place as psychiatric *disorders* has not been well established (see Appendix 2). Despite the fact that the items on the RAD are distinct from those on the SDQ, there is a strong correlation between the scales. This suggests that suffering from an attachment disorder as defined by the RAD scale does imply emotional and behavioural problems in the broad sense. Whether this indicates co-morbidity with other disorders or whether symptoms as defined by the SDQ should be considered part of the attachment disorder cluster is not clear.

The comparatively high correlation between child and foster carer SDQ scores is surprising in view of previous research suggesting the inadequacy of child self-report(Hodges, 1993; Kolko and Kadzin, 1993). Verhulst found that adolescents reported many more problems than their parents did about them (Verhulst and van der Ende, 1992), but this has not been shown for younger children. It may be that children in foster care are better informants than children in the general population due to the frequency of structured enquiry into their thoughts and feelings by social workers and other professionals. Unfortunately it has not been possible, in this study, to compare the ratings of foster carers on the SDQ with parents. There are various reasons why foster

carers might be better or poorer informants than parents. They might be better informants due to training in the recognition of children's problems. Conversely, they might be poorer informants because they are accustomed to looking after children with difficulties and therefore have a higher threshold for recognising problems. The relatively poor correlation between the scores of foster carers and teachers was also unexpected, particularly in view of the high parent-teacher correlations found in Goodman's original studies (Goodman, 1997). Kolko and Kadzin (1993) also found that parent/teacher correlations on the CBCL were higher than parent/child correlations. However, many children in foster care may be suffering from difficulties which stem from distorted family attachments and it may be that such problems are more obvious in the context of one-to-one relationships than in the larger social arena of the classroom. On the other hand, foster carers might be over-rating problems compared to teachers due to the influences of prior training mentioned above.

There was a low overall correlation between self-esteem, as measured by children themselves, and emotional and behavioural problems, as measured by the SDQ ratings of all three informants. This implies that low self-esteem is not indicative of poor mental health per se. However, self-esteem correlates most strongly with the child's own report of their emotions and behaviour as measured by the SDQ. This is perhaps not surprising as a child's self-esteem is likely to influence their responses to questions about feelings and behaviour. Previous studies of the self-image of children in care have used a variety of measures, which make comparison difficult(Lyman and Bird, 1996; Hicks and Nixon, 1989; Gil and Bogart, 1982) and none have directly assessed associations between self-esteem and emotional and behavioural problems in fostered children.

The prevalence of emotional and behavioural problems in the sample

The prevalence of emotional and behavioural problems, as defined by the SDQ, was somewhat higher than in some previous studies at around 60%. This is, however, similar to the prevalence of 57% quoted by McCann et al(McCann et al., 1996) for adolescents in foster care in Oxford – a particularly good study in that it used a total population sample, had a high response-rate, used a two-stage sampling procedure and corrected for non-responders. However, for a screening instrument such as the SDQ, the definition of "caseness" depends on the population being screened. In a low-risk population, where false negatives are of less concern than false positives, "cases" could

be considered to be those with abnormal scores only. Conversely, in a high-risk population such as this, the cut-off points for "caseness" are chosen so as to minimise false negatives and "cases" can be considered to be those with borderline or abnormal scores. It is likely that if a two-stage design such as that carried out by McCann et al were used, the true prevalence of psychiatric cases would be lower. In addition, the age-range of this sample includes much younger children than the adolescents in the McCann et al study and would be expected, perhaps, to have a lower rate of emotional and behavioural problems.

Foster carers, teachers and children all noted high rates of hyperactivity, conduct disorder and peer problems which confirms the findings of previous studies (Hellinckx and Grietens, 1994; McCann et al., 1996). Emotional problems have not been noted in previous studies of children in foster care with the exception of the McCann et al study which found a prevalence of major depressive disorder of 23% among adolescents in the care system (including residential care). Although teachers did not rate the prevalence of emotional disorders as being much higher than that of the general population at 12%, the children themselves rated the prevalence of emotional problems as being 30%. This is an area where emotional and behavioural problems of children in foster care may be particularly poorly recognised and where further research is needed. The difference between foster carers' and teachers' ratings of prosocial (caring, helpful) behaviour-fewer problems with prosocial behaviour noted by foster carers- could reflect the foster carers' lower expectations of such behaviour in children they look after. Conversely, a lack of caring, helpful behaviour may be particularly noticeable in a classroom setting where co-operation is essential. The fact that the children see themselves as more caring and helpful than do foster carers or teachers is perhaps not surprising, but in a previous study of the self-report SDQ, the correlation between parents and children's reports of prosocial behaviour was higher than expected (Goodman et al., 1998).

The prevalence of attachment disorders in the sample

The prevalence of attachment disorders must be viewed with caution because of the poor response to the School Survey. Despite the likelihood that better functioning families participated in the School Survey, the final sample came from deprived areas of Glasgow and was therefore thought to be a reasonable comparison group for children in foster care who tend also to come from deprived backgrounds. Because the deprivation

category is a group measure based on postcode, however, even this must be viewed with caution as it is possible that some of the families who responded were not typical of the area in which they lived.

The DSM-IV category of Reactive Attachment Disorder includes the diagnostic requirement of a history of "grossly pathogenic care"(American Psychiatric Association, 1994). It is clear that children in foster care are more likely to have suffered "grossly pathogenic care", so the significantly higher scores on the RAD scale compared to the school sample were to be expected. An overall prevalence of attachment disorders of over 50% in the fostered sample coupled with the previously mentioned correlation with SDQ scores suggests a large previously unrecognised need for management of attachment disorders in children in foster care. Unfortunately, because of the paucity of research into attachment disorders, well evaluated treatments are not available at present and more research is needed to address the needs of this population of very vulnerable children.

The association between previous experience of abuse and emotional and behavioural problems

Almost all of the children in the sample (93%) were known to have been abused and/or neglected at some point in the past. In order to be coded as having suffered a particular type of abuse or neglect, there was either strong evidence or a very high index of suspicion that such abuse or neglect had taken place. The definition of emotional abuse is the most problematic. The definition used by social workers in the study was "systematic failure to take the child's emotional needs into account". This could include, for example, persistent ridicule, persistent failure to note a child's birthday or verbal abuse. As such, it is clear that the definition of "emotional abuse" may also contain within it emotional neglect. Bearing this in mind, it was perhaps unsurprising that emotional abuse was associated with high scores on the SDQ. Studies of children reared in conditions of low emotional warmth and stimulation have shown that such environments are associated with emotional and behavioural problems which can be resolved when the environment changes (Tizard and Hodges, 1978; Chisolm et al., 1995). On the other hand it is possible that children who have emotional and behavioural problems may be difficult to care for and hence may be more vulnerable to emotional abuse.

There has been an abundance of evidence regarding the associations between sexual abuse and mental health problems (Mullen et al., 1994; Bagley, 1996). What was more surprising, in the present study, was the lack of association between physical abuse and neglect, especially as there was a great overlap between the various types of abuse and neglect suffered by individual children in the sample. Associations between abuse or neglect and emotional and behavioural problems may be less obvious in a sample such as this where virtually all of the sample has been affected than in a general population sample in which there is a greater proportion of children who have not been abused. Also, in a sample of children in foster care, those coded as not having been abused may have been abused to an extent not noted by professionals or may have suffered grossly abnormal parenting which fell short of a definition of abuse but which caused removal into care.

Sexual abuse was the only form of abuse found to be associated with attachment disorders. Again, the direction of causality is unclear. It may be that sexual abuse distorts the attachment relationships with important adults hence leading to an attachment disorder, but conversely the indiscriminate friendliness characteristic of attachment disorders could make children more vulnerable to being sexually abused. The lack of association between attachment disorders and emotional abuse and neglect was surprising in view of the clinical requirement of "grossly pathogenic care" for the diagnosis of attachment disorders. Again, this lack of association could be due to the lack of variance within the sample for emotional abuse and neglect.

Previous placements

As has been previously noted (Cantos et al., 1996; Gean et al., 1985), emotional and behavioural problems in this sample were associated with a larger number of previous placements. This could be due to a detrimental effect of frequent changes of caregiver, but it is also possible that children with prior emotional and behavioural health problems are more difficult to care for, precipitating more frequent placement breakdown.

The association between emotional and behavioural functioning and characteristics of birth parents

The association between the emotions and behaviour of the child and parental criminality was surprising in view of the small sample size involved. It has, however,

been noted in the past that parental criminality is associated with the development of conduct disorder (Rutter, 1978). How much of this association is determined by environmental factors and how much by genetics, remains controversial, but there is good evidence, from adoption studies, that criminality has a strong heritable component. An impressive study of approximately 90% of all people adopted in Denmark between 1924 and 1947 showed that there was a strong association between criminality in the biological father and criminality in their adopted away sons. This was also true for biological mothers and their children, but the overall rates of conviction were low (Mednick et al., 1997). The lower rate of criminal behaviour in women might explain why, in the present study, no association between maternal criminality and child emotions and behaviour was noted.

The self-esteem of children in the fostered sample and the school survey

Harter suggests that children as young as three or four are capable of creating a self-portrait and describing it, but the nature of this self-portrait changes dramatically during the middle years of childhood. At age 3 to 4, children use concrete and disconnected terms to describe themselves; they have no understanding that opposite emotions can occur together and have an "all or nothing" way of describing themselves, so that for most young children, all of their descriptions are overwhelmingly positive. Conversely, there is some evidence that self-descriptions of maltreated children can be overwhelmingly negative. Children gradually develop the ability to be more self-critical, to make generalisations about their attributes, for example, "I am stupid" or "I am clever", and eventually, around age 8, are able to describe "self-affects" such as pride and shame (Harter, 1996).

This obviously has implications for the validity of the results of the Modified Rosenberg Scale (Appendix 4). The questions state the kind of generalisations that only children of around the age of 7 are able to make about themselves and probably cannot be understood by children younger than this. In fact, only two children under the age of 7 completed the questionnaire and their results were similar to the group mean. It is also possible that younger children may have a tendency to view themselves as either "all bad" or "all good" and therefore tend to have more extreme scores than children at a later developmental stage. These are not necessarily grounds for questioning the validity of such results, because such "all or nothing" thinking may be an important

determinant of emotional and behavioural functioning, especially if past maltreatment has given the child a view of him or herself as globally bad.

The mean difference in self-esteem between the school and fostered samples was surprisingly small, despite being statistically significant, but this result may be subject to bias in a number of ways. Only a sub-sample of children were able to be interviewed about self-esteem, usually because of lack of consent from birth parents. Often this was because they were unable to be contacted due to mental illness, homelessness or an unwillingness to co-operate with social services. It is likely, therefore, that those who were interviewed were from more stable backgrounds. Conversely, the school sample was a more deprived group than the general Scottish population. As self-esteem was positively associated with social class, the school group would be expected to have a lower mean self-esteem than the general population and the fostered group to have a higher mean self-esteem than the true population of children in foster care. These biases would tend to minimise the differences between the school and fostered groups. The sub-population of fostered children who were able to be interviewed were more likely to be female, to have been sexually abused (which may well relate to the higher numbers of females) and had known their foster carers less time. However, the fact that self-esteem was not associated with sex of the child means that the lower self-esteem in the fostered group is unlikely to be due to the disproportionate numbers of females interviewed. The lack of significant associations between self-esteem and abuse or neglect in the fostered sample seems surprising, but this may have been due to the small sample size.

Limitations in baseline data and its analysis

The analysis of the baseline data has various limitations. Firstly, the relatively low recruitment rate of 42% is likely to have biased the sample towards those foster families with fewer problems as has already been discussed. Secondly, because the study was designed as a randomised controlled trial, limited data on potential confounding variables has been gathered. Prediction of potential confounders is particularly difficult in this sample because the social background of children in foster care is complex. For example, in some instances, the deprivation category of the foster family was not used in the analysis as the social class of the birth family was likely to have had more influence on the child, however, information on the social class of birth parents was available on too few children to justify its use in secondary analyses. Thirdly, this study

makes novel use of the SDQ with foster carers, rather than parents, as informants. Foster carer ratings of children may differ systematically from parent report but there has been no research to date which addresses this problem.

Summary

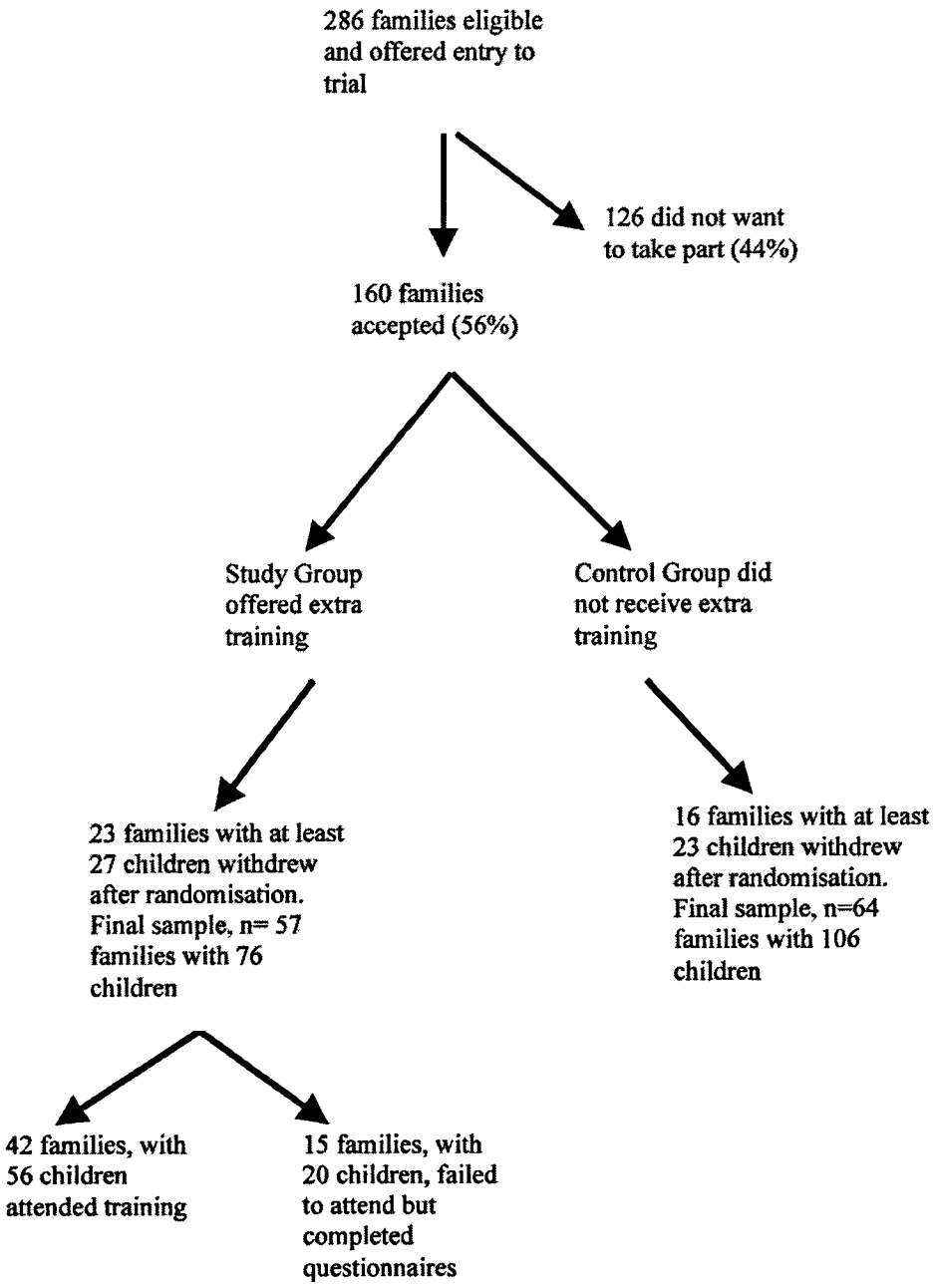
This sample of children in foster care had overwhelmingly suffered abuse and/or neglect in the past and a high proportion were suffering from emotional and behavioural problems. These problems were associated with past emotional or sexual abuse, larger numbers of previous foster placements and parental criminality. Attachment disorders were also prevalent in this group of children and were associated with past sexual abuse and the children's self-esteem was lower than that of children from the general population.

Chapter 4 - Results immediately post training (time 1)

In this chapter, the immediate effects of the training programme on attachment disorders and foster carers' attitudes is described.

4.1 - Recruitment information

Figure 4.1 - Recruitment flow diagram



The recruitment flow diagram is repeated here to aid the understanding of the following analyses. As can be seen from Figure 4.1, 160 families consented to take part in the trial but 39 families withdrew after randomisation, 23 in the study group and 16 in the control group. This resulted in a final sample of 121 families with 182 children-a recruitment rate of 42%. In the control group, 64 families took part with 106 children. In the study group, 57 families took part with 76 children. Fifteen of these families, with 20 children, failed to attend training but did return questionnaires. When calculating the attendance rate at training it is most meaningful to use the number randomised to training as the denominator. Using the number who returned questionnaires as the denominator would be misleading as 23 of the families who did not attend the training programme also did not return questionnaires. This gives an attendance rate of 52%. It is interesting to note that the final sample included only six more families in the control group compared to the study group but there were 30 more children in the control group. This suggests that the families who withdrew from the study group may have been those with larger numbers of children. Clearly, those who did not complete any questionnaires despite being randomised to a group cannot be included in an "intention-to-treat" analysis.

4.2 - The effect of randomisation

Table 4.1 - Comparison between those families randomised to the control group and those randomised to the study group

	Baseline Characteristics						
	Control group		*Study group*		*Statistical Test*		
	n=64 families		*n=57 families*				
	M	*sd*	*M*	*sd*	*t*	*df*	*p*
Age of child	11.6	3.27	10.9	3.1	1.3	138	0.2
*Number of previous foster placements	29	32	18	17	2.2	125	0.03
Length of time foster carers have known children (months)	32	33	29	26	.7	170	0.48

Deprivation Category of foster carers	4	1.2	3.8	1.2	.2	164	0.87
Foster mother's age	46	7.8	45	8.8	.9	155	0.39
Foster father's age	48	7.3	46	10	1.0	126	0.29
	n	%	*n*	%	χ^2		*p*
Carers with biological children of their own	82	92	67	97	1.8		0.18
Carers with a biological child younger than the index fostered child	28	32	21	31	0.06		0.94
Fostered children who are male	51	54	45	62	0.9		0.34
Children with siblings in the same placement	37	44	16	29	2.9		0.08
Children previously abused	74	87	45	82	0.7		0.39
Children previously neglected	61	72	42	76	0.6		0.76
Children previously in residential care	23	27	15	27	0.6		0.72
Children previously in foster care	59	69	43	78	1.3		0.25
Children with a physical disability	4	5	6	11	2.0		0.38
Children with a learning disability	22	26	15	27	0.03		0.85
Children with no contact with birth parents	17	20	13	24	5.06		0.4

Randomisation achieved a good balance between the groups. The only statistically significant difference between those randomised to receive extra training and those randomised to receive standard services only was that those in the training group had fostered fewer children in the past. In the group randomised to extra training, the foster carers were slightly younger as were their children, there was a smaller proportion of female children, the children were less likely to have siblings in the same placement and were more likely to have been in previous foster placements. None of these latter

differences were statistically significant. Variables which showed a degree of imbalance were entered into the Analysis of Covariance in which the RAD scores at time 1 in the training and control groups were compared, taking into account baseline RAD scores.

4.3 - The immediate effects of training on RAD scores

As can be seen in Table 4.2, there was no significant difference in RAD scores before and immediately after the training in either the control (t=0.3; 153df; p=0.77) or study group(t=-0.4; 123df; p=0.67).

When the scores before the training were subtracted from the scores after the training, to form a variable called "change", there was no significant difference between the control and study groups.

Table 4.2 - The effect of study group on foster carers' scores on the Reactive Attachment Disorder Scale at time 1

	Mean RAD score								
	RAD score before training			*RAD score after training*			*Change in RAD score after training*		**p value (t=1.27; 98df)*
	M	sd	n	M	sd	n	M	sd	
Control group	17	9	93	17	9	62	0.3	4.5	0.2
Study group	20	10	73	21	8	52	-1.0	6.4	

* p value for the t-test of whether the change in the score for the control group is the same as the change in score for the study group.

RAD scores immediately after the training were analysed using regression, taking into account the group (control or study) and the pre-training RAD scores (Table 4.4). Those baseline variables which appeared to be imbalanced between the study groups (in Table 4.3), and where there was a likelihood of confounding, were entered into the regression in turn and were retained in the model if they had an effect on the size of the effect of being in the study group. As the unit of randomisation was the family, but the unit of analysis was the child, a Huber correction of the standard error(Huber, 1967)

was made to take into account the effect of intercorrelation between children within families. This does not effect the coefficient, but increases the standard error and p value and widens the confidence interval, as can be seen in Table 4.3.

Table 4.3 - The effect of being in the study group on foster carers' scores on the Reactive Attachment Disorder Scale, with and without Huber correction, unadjusted for potential imbalances in randomisation

n=100	*Difference in RAD score due to being in the study group*	*Standard Error*	*t*	*p (Wald test)*	*95% Confid. Interval*
Without Huber correction	0.53	0.99	0.53	0.59	-1.4 to 2.5
With Huber correction	0.53	1.1	0.49	0.62	-1.6 to 2.6

The baseline variables retained in the model were pre-training scores, the number of children previously looked after by the foster carers, the sex and age of the child.

Table 4.4 - The effect of being in the study group on foster carers' scores on the Reactive Attachment Disorder Scale after training, adjusted for pre-training scores, the number of children previously looked after by the foster carers, the sex and age of the child

	Mean RAD score			
	Unadjusted RAD score in control group after training	*Unadjusted RAD score in study group after training*	*Adjusted difference in RAD score (95% CI)**	*p value (Wald test)*
Effect of study group on score	17	21	1.2 (-1.1, 3.6)	0.3

*Difference in RAD score due to being in the study group, adjusted for the number of children previously looked after by the foster carers, the sex and age of the child.

Taking into account the background characteristics and pre-training RAD scores, being in the study group had no effect on post-treatment RAD scores.

All further regression analyses used the Huber correction and were analysed in the same way. The equivalent tables to tables 4.2 and 4.3 will be omitted in the following analyses.

4.4 - Attitudes of foster carers

The attitudes of foster carers to the training programme, and to their parenting as a result of the training, were measured using a questionnaire developed for the study (see Appendix 4). Questions 1 to 11 were completed by everyone, whereas questions 12 to 20 were only completed by those who attended the training programme. Questions 1 to 11 concern carers' attitudes to parenting and were entered into a principal factor analysis, revealing two main factors accounting for 96% of the variance. The factors were rotated using Varimax rotation. As can be seen from Table 4.5,Questions 1,2,3,4,5 and 6 had high loadings (all >0.5) after rotation on Factor 1, which accounted for 70% of the variance. This factor seemed to encapsulate foster carer confidence in parenting skills and was used to create a scale, from now on called the "Foster Carer Confidence Scale", by summing standardised scores. Questions 1,7,8,9,10 and 11 had high loadings (all> 0.38) after rotation on Factor 2, which accounted for 27% of the variance. Questions 1 and 11 loaded in the opposite direction to the other factors. This factor seemed to encapsulate foster carer self-doubt and was used to create a scale, from now on called the "Foster Carer Negativity Scale", by summing standardised scores. The results of the principal factor analysis were confirmed by principal components analysis which gave very similar results.

Questions 12 to 20 concerned foster carers' attitudes to training and were similarly entered into a principal factor analysis, rotated and the results confirmed by principal components analysis. Questions 12, 13, 14, 16, 18, and 19 had high loadings (all >0.38) on one main factor, accounting for 82% of the variance. This seemed to encapsulate an attitude that one had benefited from the training and was used to create a scale, from now on called the "Perceived benefit from training scale", by summing standardised scores. Again, the results of the principal factor analysis were confirmed by principal components analysis which gave very similar results.

Table 4.5 - Principal factor analysis of foster carers' attitudes to parenting

n=168	Question	Factor Loading
	Factor 1-eigenvalue 3.15; 70% of variance	
1. * I have felt like a good foster carer		-0.50
2. *I have felt that Jimmy is fond of me		-0.75
3. * I am able to help Jimmy with problems		-0.71
4. *I have been able to comfort Jimmy		-0.81
5. *I have had good conversations with Jimmy		-0.63
6. *I have had fun playing with Jimmy		-0.68
7. I have felt Jimmy was out of control		0.09
8. I have had arguments with Jimmy		-0.04
9. I have felt like hitting Jimmy		-0.11
10. I wish this foster placement would end sooner than is planned		-0.06
11. I wish this foster placement would continue permanently		-0.09
	Factor 2-eigenvalue 1.19; 27% of variance	
1. *I have felt like a good foster mother		0.38
2. I have felt that Jimmy is fond of me		0.21
3. I am able to help Jimmy with problems		0.07
4. I have been able to comfort Jimmy		0.06
5. I have had good conversations with Jimmy		0.11
6. I have had fun playing with Jimmy		0.01
7. *I have felt Jimmy was out of control		-0.58
8. *I have had arguments with Jimmy		-0.45
9. *I have felt like hitting Jimmy		-0.39
10.*I wish this foster placement would end sooner than planned		-0.51
11.*I wish this foster placement would continue permanently		0.56

Table 4.6 - Principal factor analysis of foster carers' attitudes to the training

n=48	Question	Factor Loading
	Factor 1-eigenvalue 3.78; 82% of variance	
12.	*I enjoyed the training	-0.43
13.	*I learned a lot from the training	-0.69
14.	*I think I am a better foster carer since doing the training	-0.62
15.	*I think I am a worse foster carer as a result of the training*	-0.03
16.	*Jimmy is more settled as a result of the training	-0.44
17.	*I can talk to Jimmy more easily as a result of the training*	-0.27
18.	*I get on better with Jimmy as a result of the training	-0.48
19.	*Jimmy is better behaved as a result of the training	–0.38
20.	*I understand Jimmy better as a result of the training*	-0.16

Note. For both Tables 4.5 and 4.6, questions with an asterisk were included in a summary scale of the factor and those in italics left out.

4.5 - The association between study group and foster carer confidence

The association between being in the group invited to attend extra training and foster carer confidence was tested. The control group appeared to be significantly more confident after the training than the study group(t= -2.2; p=0.03), but this difference disappeared after controlling for the length of time the carers had known the child, the foster mother's age, the number of children the carers had previously fostered and the level of contact with birth parents.

Table 4.7 - The effect of being in the study group on foster carers' scores on the Confidence Scale after training

	*Adjusted difference in Confidence score (95% CI)**	*p(Wald test)*
Study group	-1.1(-.3, -.7)	0.2

*Difference in Confidence Score due to being in the study group, adjusted for pre-training scores, the length of time the carers had known the child, the foster mother's age, the number of children the carers had previously fostered and the level of contact with birth parents.

4.6 - The association between study group and foster carer negativity

There was no significant association between being in the group invited to attend extra training and negativity towards the child after the training (t=0.9; p=0.87). There continued to be no association after adjusting for the sex of the child and for the level of contact with birth parents.

Table 4.8 - The effect of being in the study group on foster carers' scores on the Negativity Scale after training

	*Adjusted difference in Negativity score (95% CI)**	*p(Wald test)*
Study group	-0.7(-1.0, -.8)	0.9

*Difference in Negativity Score due to being in the study group, adjusted for pre-training scores, the length of time the carers had known the child, the foster mother's age, the number of children the carers had previously fostered and the level of contact with birth parents.

4.7 - Perceived benefit from training

The mean score for the six questions comprising the perceived benefit scale was 2.5 (SD=0.6; n=48)

Figure 4.1 - The scoring of the Perceived Benefit Scale

Mean score ↓

Scoring	*0*	*1*	*2*	*3*
	No, not at all	*No, not much*	*Yes, a little*	*Yes, definitely*
I enjoyed the training				
I learned a lot from the training				
I think I am a better foster carer since doing the training				
Jimmy is more settled as a result of the training				
I get on better with Jimmy as a result of the training				
Jimmy is better behaved as a result of the training				

In other words in the four point ordinal scale from "no, not at all" to "yes, definitely", the foster carers who took part in the training programme on average perceived some benefit from it. In addition to enjoying the training, they perceived that they were better carers since the training, that the child they were looking after was more settled and better behaved and that their relationship with the child had improved.

4.8 - The association between baseline characteristics and perceived benefit from the training

There were no significant associations between the baseline variables tested-length of time foster carers have known child, deprivation category of carers, foster mother's age, number of children previously fostered by carers, sex and age of child, previous abuse of child, physical or learning disability of child or level of contact with birth parents-and perceived benefit from training.

4.9 - Discussion

The effect of training on attachment disorders

The training had no measurable effect on the foster carers' rating of attachment disorders in the children they look after, immediately post-training. However, there are various reasons why an effect would have been unlikely. The immediate post-training questionnaires were completed approximately two weeks after the pre-treatment questionnaires and asked about the previous week's behaviour. Changes in RAD scores after training would have had to have occurred in one of two ways: firstly, a rapid change in the behaviour of the children occurring during or after the first two days of the training, which took place in the first week, could have changed RAD scores immediately post-training. This seems very unlikely. Secondly, a change in the attitude of the foster carers towards the children as a result of training could have changed RAD scores. It is, however, difficult to predict whether such a change in attitude would tend to make foster carers more likely to notice abnormal behaviour, or whether it would tend to make them see children more sympathetically and perhaps rate them lower.

The effect of the Huber correction

The purpose of the Huber correction was to estimate and allow for the correlation between children in families. A high correlation between scores of siblings in families would decrease the precision of an estimate based supposedly uncorrelated children, i.e. there would be an increase in the standard error and hence the p value. As can be seen from Table 4.3, the effect of the Huber correction on the standard error was minimal, which implies that there was little correlation between children within a foster family. Previous studies have shown that the salient environmental influences affecting individuals are not shared by children growing up within the same family (Plomin and Daniels, 1987) and that siblings living in the same family environment often experience an event which apparently affected both (say a bereavement) in a very different way (Beardsall and Dunn, 1992). Previous research has not studied children in foster care, but the outcome of the Huber correction suggests that, as in biological families, a child's environment is largely non-shared.

Foster carers' confidence in their caring abilities and negative feelings about the children they look after

Factor analysis revealed two uncorrelated factors in the questionnaire regarding attitudes towards parenting. The first factor, accounting for a large proportion of the variance, seemed to encompass items regarding an ability to form a good relationship with the child. The second factor encompassed items regarding both an inability to form a good relationship with the child and perhaps also a perception of problems within the child ("I feel that the child is out of control"). The fact that the factor structure was confirmed by principal components analysis adds weight to this interpretation and rotation ensures that the factors produced are not simply an artefact of the method.

Neither foster carer confidence or negativity was associated with being in the group receiving extra training. The results suggest that the training had no immediate effect on foster carer confidence in parenting or negativity towards the child. However, as neither of these measures was taken at baseline, this could reflect baseline differences in attitude towards parenting. This is, however, unlikely as the whole point of randomisation is to achieve two groups which are similar in all aspects and the only reason for using measures at baseline is to increase the precision of the analysis.

Foster carers attitudes towards the training itself

Factor analysis also suggested one factor accounting for most of the variance of the questionnaire which asked about foster carers' attitudes to the training. The numbers actually completing the training and hence this questionnaire were too small for such a factor analysis to be considered stable. For that reason the results were treated conservatively and only one factor was retained. However, very similar results were obtained by principal components analysis; this and the face validity of the scale produced lends some credence to the findings. The fact that there were no significant associations between baseline variables and perceived benefit of training is perhaps not surprising due to the small sample size.

The mean score on this scale, however, suggests that the group who took part in the training perceived some benefit from it. The carers enjoyed the training, felt that it had improved their relationship with the child they were looking after, felt that they were doing a better job at caring and that the child was more settled and better behaved. It is

disappointing that these benefits which training participants perceived to have occurred were not borne out in an increase in the carers' confidence or a decrease in carer's negativity towards the children. This may, at least in part, be due to the dilution of effects of the training by those randomised to the training group who did not attend.

Chapter 5 - Results nine-months post training (time 2)

This chapter describes the effect of the training programme on children's emotional and behavioural functioning and on the rate of breakdown of placements nine months post-training.

5.1 - Training offered to all carers by local authorities

Virtually all foster carers taking part in the study were offered some training or support groups by the local authority during the time the project ran in their area. This varied greatly from area to area; one local authority offered 62 hours of training during the nine months of the study whereas another small authority offered none. The mean number of hours of training offered during the nine months of the study was 33, but there was a marked discrepancy between the number of hours offered by the local authority and the number of hours of training actually attended by the foster carers. This was often due to only a limited number of places being offered on certain courses, particularly when the course was run by an outside speaker, but also due to non-attendance. There were only 100 (65%) responses to the questionnaire about training and some of the non-responders may have left this section blank because they had not attended any training. The following figures, therefore, may well be an over-estimate. The mean number of hours of training attended by foster carers taking part in the study was 6 (excluding the extra training offered those randomised to the study group), and ranged from zero to 42. Forty-eight percent of carers attended no training at all. During the course of the study, out of the 100 carers who responded to this section of the questionnaire, only 6 carers had attended training on management of difficult behaviour, 2 on sexual abuse, 2 on abuse in general, 23 on the Children Act Scotland, 4 on child development, 3 on attachment/separation/loss and 1 on communicating with children. In addition, foster carers attended an average of 8 hours of support groups (range 0 to 52) during the nine months the study was running in their area.

5.2 - Attendance at the training provided by the project

Fifty-two percent of those randomised to the training did not attend (see Figure 4.1). A few made contact at the time to explain why they were unable to attend, but the others were telephoned by the study secretary shortly after the training programme and asked to give feedback about what had prevented them from attending. As can be seen from table 5.1, two-fifths were unable to attend due to illness in the family; some of carers

were responsible not only for a number of children, but also for elderly relatives. A fifth were unable to arrange childcare, despite the cost of childcare being covered by the study. This can be a particular problem for social work departments, because children have to be babysat by registered child carers-often other foster carers-and a child with special needs or behavioural problems may be difficult for someone who is looking after other children to take on. Over a fifth were unable to attend for a variety of reasons which could not be planned for, such as a child being expelled from school, or a birth parent coming unexpectedly for an access visit. Seventeen percent could not give a reason for non-attendance or gave a reason which could have been overcome or planned for, such as another training course falling on the same day or "no transport" when transport was provided.

Table 5.1 - Reasons for not attending training

Reason	*Number of carers*	*% of non-attenders*
Illness in family	12	40%
Lack of childcare	6	20%
Other "insurmountable"	3	10%
Other "surmountable"	7	23%
Unknown	2	7%
Total	*30	100%

* the total sample is 30 (rather than 15) because some carers were contacted about non-attendance who did not return any questionnaires.

5.3 - Breakdown of placements

A "breakdown" of placement was defined as a situation in which the child was moved from the foster placement in a manner which did not comply with the original plans of the social work department. For simplicity, the denominator for "breakdown rate" was taken as the family rather than the individual placement. In other words, any family in which any of the children they were looking after (whether eligible for the study or not) left the foster home in an unplanned way, during the study period, was recorded as having had a breakdown. Nineteen percent of the families who took part experienced a breakdown in placement during the study period.

The association between demographic variables and breakdown rate was investigated using logistic regression (Table 5.2). The distribution of the number of children previously placement was skewed (see Figure 5.1), therefore the natural log of the number of children was used for analyses. Numbers vary as some foster carers did not complete background data forms. The deprivation category and status of placements were known for those who did not take part in the study, those who were offered entry to the study and those who did not meet inclusion criteria, therefore the number for this analysis is 561.

The odds ratio is the effect of the variable. For example, the number of siblings in the placement gives an odds ratio of 1.4 when regressed against placement breakdown. In other words, for each sibling in placement, there is a 40% greater chance of the placement breaking down.

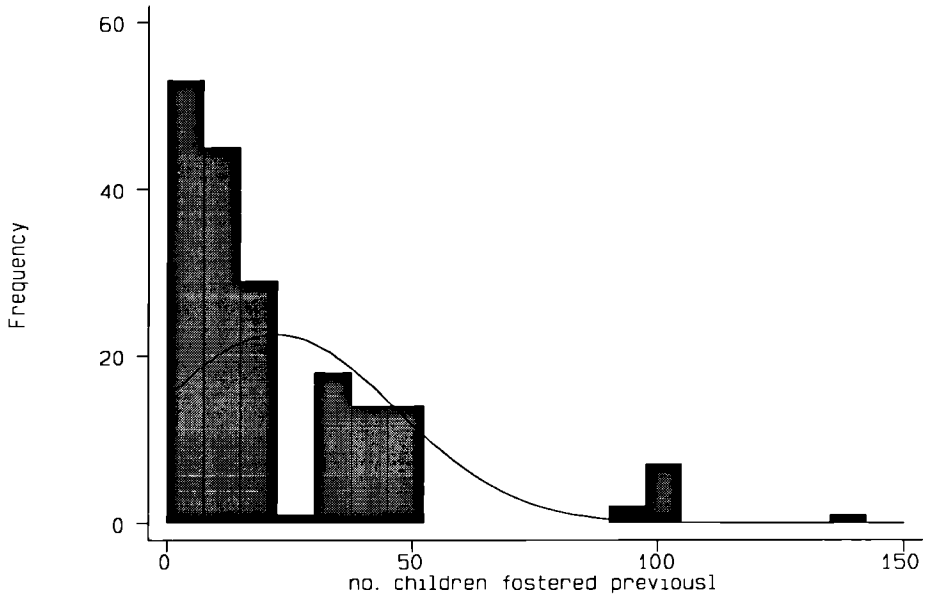
Table 5.2 - Characteristics of the participants and the odds of breakdown of placement

	n	Odds Ratio * (95% CI)	p
Number of children previously looked after by foster carers	125	2.2 (1.4, 3.4)	0.001
Time foster carers had known the child at the start of the study period	133	0.80 (0.5, 1.2)	0.2
Deprivation category (increasing DepCat with increasing deprivation)	561	0.83 (0.7, 0.9)	0.03
Biological child in the family younger than the foster child (yes:no)	152	1.9 (0.7, 5.4)	0.2
Sex of child (M:F)	164	1 (0.4, 2.2)	0.9
Age of child	134	1.1 (0.9, 1.3)	0.1
Siblings in the same placement	134	1.4 (0.6, 3.5)	0.7
Previous abuse	133	2 (0.8, 5.7)	0.1
Previous neglect	130	1.4 (0.5, 3.6)	0.5
Child previously in residential care	133	2.9 (0.8, 10)	0.09
The number of previous foster placements the child had been in	134	1.4 (0.6, 3.5)	0.4
Physical disability in the child (yes:no)	131	2.2 (0.3, 18)	0.4
Learning disability in the child	134	1.3 (0.5, 3.5)	0.6
Contact with birth parents (yes:no)	128	1 (0.4, 2.9)	0.9
Time spent in total with birth parents	83	1 (0.98, 1)	0.7

Note. For binary variables, the odds ratio is the ratio of the odds of breakdown if the variable equals "yes" to the odds of breakdown if the variable equals "no". For continuous variables, the odds ratio is the ratio of the odds of breakdown at unit increase in the variable to the odds of breakdown at baseline.

Because the number of children previously looked after by foster carers had a highly significant association with breakdown rate, it was examined in more detail, in Figure 5.1

Figure 5.1 - Distribution of the number of children previously fostered by carers



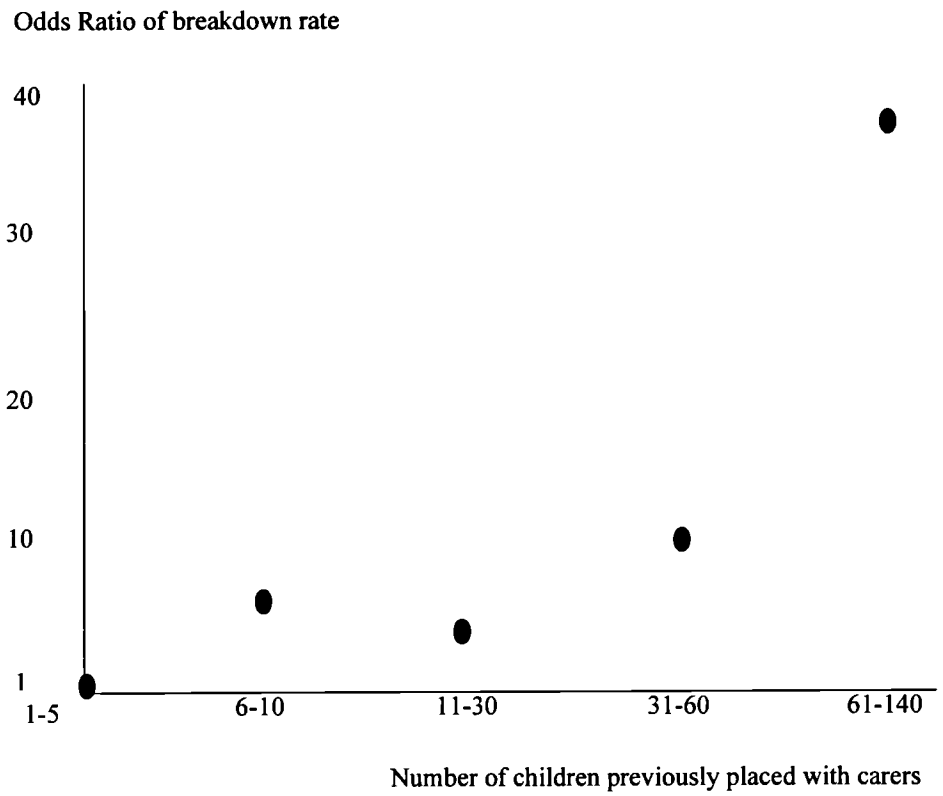
The minimum number of children previously fostered was 1 and the maximum, 140. The variable "number of children previously fostered" was grouped so that approximately similar numbers of families were in each group and the association with breakdown rate analysed.

Table 5.3 - The association between the number of children fostered previously and breakdown in placements

Number of children fostered previously	*Breakdown in placement*			*Odds Ratio (95% CI)*	*p value (Wald test)*
	Yes	*No*	*Total n*		
1 to 5 (baseline)	1	24	38	———	———
6 to 10	7	29	47	5.8 (0.7, 50)	0.1
11 to 30	4	25	47	3.8 (0.4, 37)	0.2
31 to 60	7	18	42	9.3 (1.1, 83)	0.04
61 to 140	6	4	10	36 (3.3, 383)	0.003
Total sample	100	25	125		

As can be seen from table 5.2, there was a significant association between having previously looked after 31 to 60 children and placement breakdown; compared to baseline (having looked after 0 to 5 children), foster carers in this group were over 9 times as likely to have experienced a breakdown in the previous nine months. There was also a significant association between having previously looked after 61 to 140 children and placement breakdown; compared to baseline (having looked after 0 to 5 children), foster carers in this group were 36 times as likely to have experienced a breakdown in the previous nine months. Caution must be used in interpreting this latter result, however, as it is based on only 10 participants.

Figure 5.2 - Odds ratios of breakdown rate and numbers of previous placements



5.4 - Non-responders at nine months post training

Nine months post training, questionnaires were completed on 82% (151) of children on whom they had been completed at baseline (183). There was little difference, in the variables examined, between those families who completed their questionnaires ("completers") and those who did not ("non-completers") as can be seen from Table 5.4.

Table 5.4 - Comparison of baseline characteristics between those families who completed the study and those who did not

	Baseline Characteristics						
	Completers		*Non-completers*		*Statistical Test*		
	M	sd	M	sd	t	df	p
Age of child	11	3.2	12	2.9	0.7	146	0.48
Number of children previously fostered by foster carers	23	21	24	28	0.19	134	0.85
Length of time foster carers have known children (months)	36	39	30	29	0.98	145	0.32
Deprivation Category of foster carers	4	1	4	1	0.08	175	0.94
*Foster mother's age	46	8	43	10	-2.0	165	0.04
	n	%	n	%	χ^2		p
Percentage of fostered children who are male	91	60	15	48			
Percentage of children with siblings in the same placement	56	37	10	31	0.34		0.55
Percentage of children previously abused	126	84	27	85	0.00		0.97
Percentage of children previously neglected	112	74	21	65	2.2		0.32

Percentage of foster carers with biological children of their own	142	94	30	32	0.03	0.21
Percentage of children with no contact with birth parents	35	23	4	12	1.7	0.19
Percentage of foster families experiencing a breakdown during the study	27	18	5	16	0.06	0.8

The only statistically significant difference between completers and non-completers was in the age of the foster mothers (marked with an *). Those completing questionnaires at both baseline and nine months post training tended to be slightly older. They also tended to have known the fostered children longer, and the children they were looking after were more likely to be male, to have been neglected and to have no contact with birth parents, although these latter differences were not statistically significant.

There was no significant difference in the completion rate between the study group (82%) and the control group (83%); the different numbers in the groups is due to the greater withdrawal from the trial in the study group after randomisation and before data collection and the greater number of children in the control group compared to the study group.

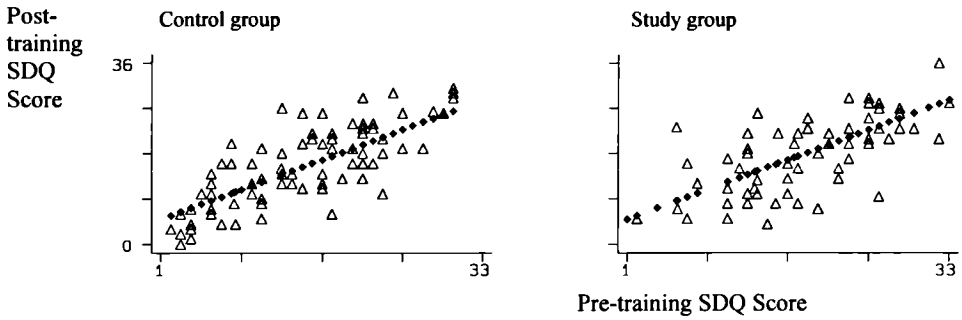
5.5 - Effects of training on SDQ scores

Foster Carer Scores

In the next section, the effects of the training programme on scores on the Strengths and Difficulties Scale is reported.

Score on the SDQ nine-months post-training were highly correlated with pre-training SDQ scores (0.72, $p<0.0001$). When analysed separately for the control and study group, the correlation between pre-and post-training scores was slightly higher in the control group (0.76, $p<0.0001$) than in the study group (0.65, $p<0.0001$). Plotting pre-training foster carer SDQ scores against post-training SDQ scores by study group, as in Figure 5.3, showed that there was little change in SDQ scores after training in either the control or study group.

Figure 5.3 - The correlation between pre- and post-training SDQ scores by study group



Pre- versus post training SDQ scores

Table 5.5 - The effect of study group on foster carers' scores on the Strengths and Difficulties Scale at nine months post training

	Mean SDQ score								
	SDQ score before training			*SDQ score after training*			*Change in SDQ score after training*		*p value* (t=1.4; 148 df)*
	M	sd	n	M	sd	n	M	sd	
Control group	16	8	106	16	8	88	0.4	5.2	0.12
Study group	19	8	76	18	8	62	-0.9	6.1	

*p value for the t-test of whether the change in the score for the control group is the same as the change in score for the study group.

There was no significant difference in SDQ scores before and nine-months after the training in either the control group (t=-0.04; 192 df; p=0.9) or study group (t=0.45; 136df; p=0.65). When SDQ scores before the training were subtracted from scores nine-months after training to form a variable called "change", there was no significant difference between the control and study groups.

The effect of the training on SDQ scores was analysed using regression and a Huber correction was used to account for potential correlation between scores of children

living in the same foster family. Variables which showed a degree of imbalance after randomisation (Table 4.1) were entered into the regression one by one. These variables were: foster mother's age, number of children previously fostered by the family, the sex of the index child, the age of the index child and whether or not the index child also had siblings in that placement. Only those variables which appeared to have a confounding effect on the outcome (i.e. changed the magnitude of the effect of being in the study group) were retained in the final model in Table 5.6.

Table 5.6 - The effect of being in the study group on foster carers' scores on the Strengths and Difficulties Scale after training, adjusted for pre-training scores, the number of siblings in the placement and the age of the child

	Mean SDQ score			
	Unadjusted SDQ score in control group after training	*Unadjusted SDQ score in study group after training*	*Adjusted difference in SDQ score (95% CI)*	*p value (Wald test)*
Effect of study group on score	16	18	-0.8 (-3.1, 1.4)	0.4

Taking into account the effect of baseline variables, the training had no statistically significant effect on foster carer SDQ scores.

Teacher SDQ Scores

As for the foster carer SDQ, the teacher SDQ scores were analysed using regression analysis, including only those baseline variables in which there was a degree of imbalance after randomisation and which appeared to have a confounding effect on the outcome.

Table 5.7 - The effect of being in the study group on teachers' scores on the Strengths and Difficulties Scale after training, adjusted for pre-training scores, the number of children previously looked after by the foster carers, the number of siblings in the placement, the age and sex of the child

	Mean SDQ score			
	Unadjusted SDQ score in control group after training	*Unadjusted SDQ score in study group after training*	*Adjusted difference in SDQ score (95% CI)**	*p value (Wald test)*
Effect of study group on score	10.4	16.2	2 (-3.0, 7.0)	0.4

Taking into account the effect of baseline variables, the training had no statistically significant effect on teacher SDQ scores.

Child SDQ Scores

As for the foster carer and teacher SDQ, the child SDQ scores were analysed using regression analysis, including only those baseline variables in which there was a degree of imbalance after randomisation and which appeared to have a confounding effect on the outcome.

Table 5.8 - The effect of being in the study group on children's ratings of themselves on the Strengths and Difficulties Scale after training, adjusted for pre-training scores, the number of children previously looked after by the foster carers, the number of siblings in the placement, the age and sex of the child

	Mean SDQ score			
	Unadjusted SDQ score in control group after training	*Unadjusted SDQ score in study group after training*	*Adjusted difference in SDQ score (95% CI)**	*p value (Wald test)*
Effect of study group on score	12.3	15.3	-2.1 (-5 , .8)	0.2

Taking into account the effect of baseline variables, the training had no statistically significant effect on child SDQ scores.

5.6 - The effects of training on RAD scores at nine months

Table 5.9 - The effect of study group on foster carers' scores on the Reactive Attachment Disorder Scale at nine months post training

	Mean RAD score								
	RAD score before training			*RAD score after training*			*Change in RAD score after training*		**p value (t=2.04; 140)*
	M	sd	n	M	sd	n	M	sd	
Control group	17.4	9.2	93	18.1	8.6	83	2	6.0	0.043
Study group	20.3	10.3	73	20.8	8.7	59	-0.4	8.0	

* p value for the t-test of whether the change in the score for the control group is the same as the change in score for the study group.

There was no significant difference in SDQ scores before and nine-months after the training in either the control group (t= -0.6; 174df; p=0.6) or study group (t= -0.3; 130 df; p=0.7). When the RAD scores before the training were subtracted from the scores

after the training, to form a variable called "change", there was a significantly greater change in the study group compared to the control group.

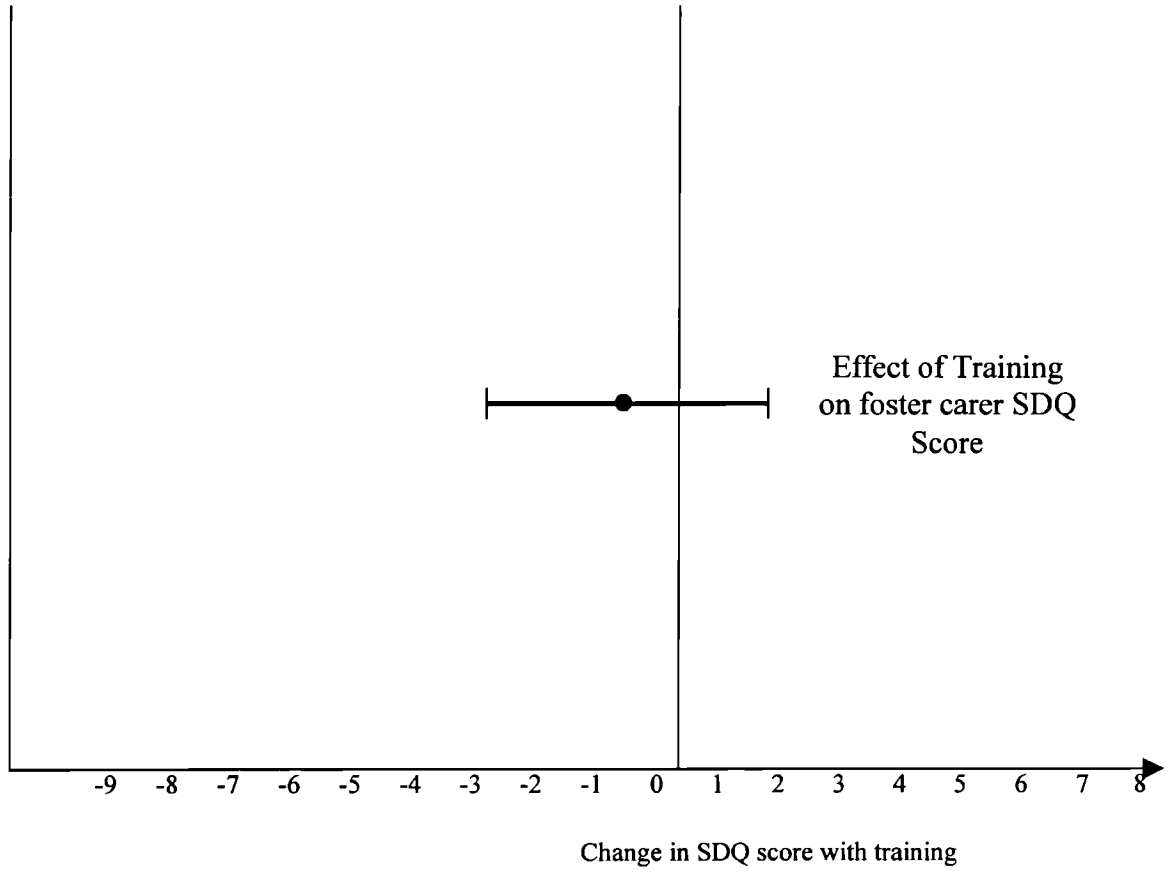
The effect of the training on RAD scores, nine-months after the training, was analysed using regression and a Huber correction was used to account for potential correlation between scores of children living in the same foster family. Variables which showed a degree of imbalance after randomisation (table 4.1) were entered into the regression one by one. Only those variables which appeared to have a confounding effect on the outcome (i.e. changed the magnitude of the effect of being in the study group) were retained in the final model and are shown in table 5.10.

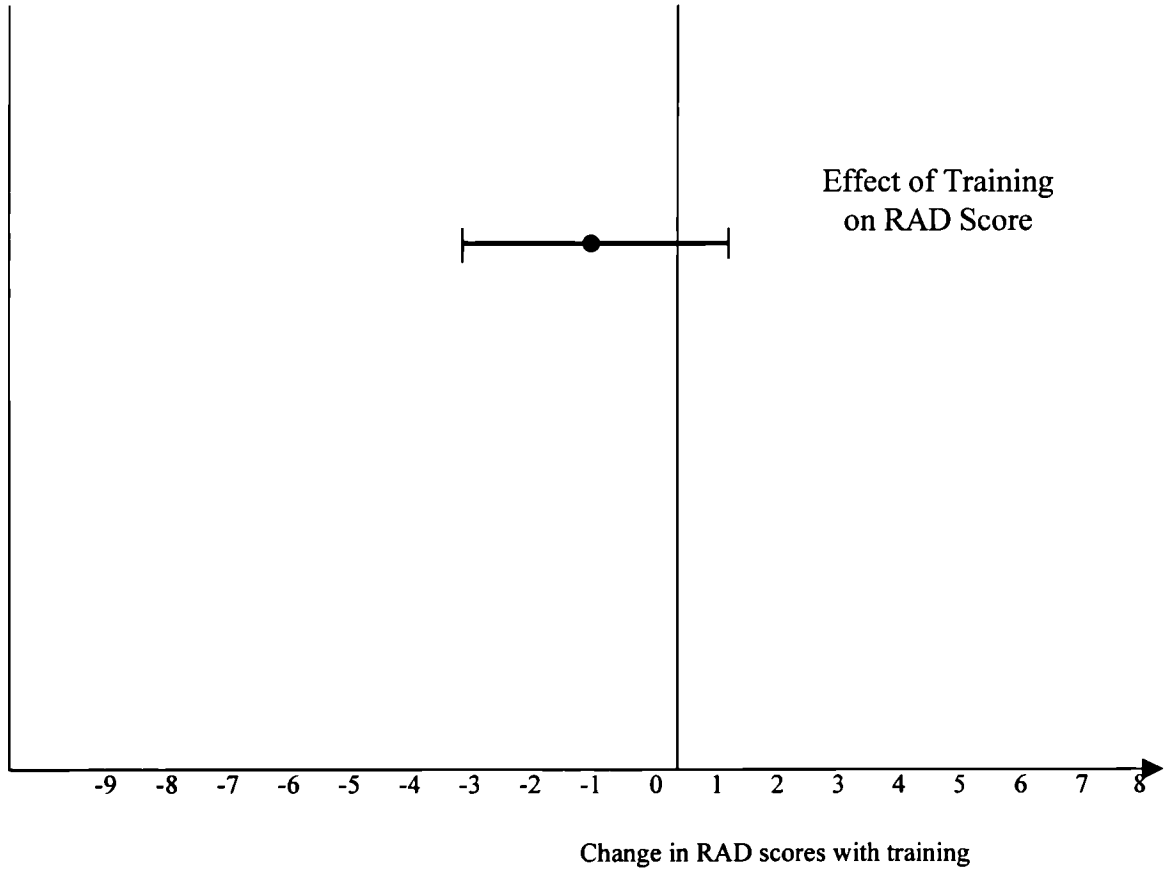
Table 5.10 - The effect of being in the study group on foster carers' scores on the Reactive Attachment Disorder Scale nine months after training, adjusted for pre-training scores, the number of siblings in the placement, the sex and age of the child

	Mean RAD score			
	Unadjusted RAD score in control group after training	*Unadjusted RAD score in study group after training*	*Adjusted difference in RAD score (95% CI)*	*p value (Wald test)*
Effect of study group on score	18.1	20.8	-1.2 (-3.5, 1.1)	0.29

Taking into account the effect of baseline variables, the training had no statistically significant effect on RAD scores. Figure 5.4 describes the overall training effect.

Figure 5.4 - Effect of the training on the SDQ and RAD scales, with 95% confidence intervals





5.7 - The effects of training on breakdown rate

Table 5.11 - The effect of study group on the rate of breakdown of placements at nine months post training

Breakdown rate					
Control group		*Study group*			
n*	%	n*	%	χ^2	p
19	21	10	14	1.2	0.3

* number of families experiencing a breakdown

When unadjusted for baseline variables, the breakdown rate in the study group was 7% lower than in the control group. This did not reach statistical significance. The effect of the training on the odds of breakdown was analysed using logistic regression. Variables which showed a degree of imbalance after randomisation (Table 4.1) were entered into the regression one by one. These variables were: foster mother's age, number of children previously fostered by the foster carers, the sex of the index child, the age of the index child and whether or not the index child also had siblings in that placement. Only the number of children previously looked after by foster carers was retained in the final model in Table 5.12.

Table 5.12 - The effect of being in the study group on the odds of breakdown of placements after training, adjusted for the number of children previously looked after by the foster carers

	Breakdown rate			
	Unadjusted odds of breakdown in control group after training	*Unadjusted odds of breakdown in study group after training*	*Adjusted odds ratio (95% CI)**	*p value (Wald test)*
Effect of study group on odds of breakdown	.26	.16	1.3	0.2

*odds of breakdown in control group/odds breakdown in study group adjusted for the number of children previously looked after by the foster carers.

When adjusted for the number of children previously looked after by the foster carers, the training did not have a statistically significant effect on the odds of breakdown of placement.

5.8 - The attitudes of foster carers nine months after the training

Foster carers' confidence

Using the Foster Carer Confidence Scale, described in Chapter 2, section 2.9 and Chapter 4, section 4.3, there was a significant increase in scores, indicating an increase in foster carer confidence, in both the study and control groups during the nine-month follow-up period. However, there was no significant difference between the change in confidence scores in the control group or study group from time 1 to time 2, as can be seen in Table 5.13.

Table 5.13 - The effect of study group on foster carers' scores on the Confidence Scale at nine months post training

	Confidence score immediately after training			*Confidence score nine months after training*			*p value* (t= -0.02; 105df)*
	M	sd	n	M	sd	n	
Control group	12.7	2	69	17.3	4	56	0.99
Study group	12.3	2	60	16.8	3	51	

*p value for the t-test of whether the change in the score for the control group is the same as the change in score for the study group.

Participant characteristics which might be expected to be associated with both the response to training and the foster carers' confidence, or which showed a degree of imbalance at baseline (table 4.1), were entered into a regression analysis one by one. The variables were: the foster carers' deprivation category, the foster mother's age, the sex of the index child, the age of the index child, whether the child had been abused or neglected and the number of children the family had looked after in the past. Only those with a confounding effect on the association between study group and confidence were included in the final regression model.

Table 5.14 - The effect of being in the study group on foster carers' scores on the Confidence Scale nine months after training, adjusted for the carer's deprivation category and whether or not the child had previously been abused or neglected

	Mean SDQ score			
	Unadjusted Confidence score in control group 9 months after training	*Unadjusted Confidence score in study group nine months after training*	*Adjusted difference in Confidence score (95% CI)**	*p value (Wald test)*
Effect of study group on score	17.3	16.8	0.1 (-1.5, 1.8)	0.89

Taking into account the variables in table 5.10, there was no significant increase in the confidence of those foster carers randomised to extra training compared to those in the control group.

Foster carers' negativity

Using the Foster Carers' Negativity Scale, described in Chapter 2, section 2.9 and Chapter 4, section 4.3, there was no significant difference in negativity scores of foster carers in the study groups, when measured immediately after the training or nine-months later.

Table 5.15 - The effect of study group on foster carers' scores on the Negativity Scale at nine months post training

	Negativity score immediately after training			*Negativity score nine months after training*			*p value* (t= -0.02; 105 df)*
	M	sd	n	M	sd	n	
Control group	2.3	2	69	2.6	2	55	0.99
Study group	2.9	2	59	3.3	3	51	

*p value for the t-test of whether the change in the score for the control group is the same as the change in score for the study group.

Demographic variables which might be expected to be associated with both the response to training and the foster carers' negativity, or which showed a degree of imbalance at baseline (table 4.1), were entered into a regression analysis one by one. The variables were: the foster carers' deprivation category, the foster mother's age, the sex of the index child, the age of the index child, whether the child had been abused or neglected and the number of children the family had looked after in the past. Only those with a confounding effect on the association between study group and confidence were included in the final regression model in Table 5.12.

Table 5.16 - The effect of being in the study group on foster carers' scores on the Negativity Scale nine months after training, adjusted for the carer's deprivation category and whether or not the child had previously been abused or neglected

	Mean SDQ score			
	Unadjusted Negativity score in control group 9 months after training	*Unadjusted Negativity score in study group nine months after training*	*Adjusted difference in Negativity score (95% CI)**	*p value (Wald test)*
Effect of study group on score	2.6	3.3	0.6 (-0.9, 1)	0.9

Taking into account the variables in Table 5.12, there was no significant difference between the negativity of those foster carers randomised to extra training compared to those in the control group.

The mean score for the six questions comprising the perceived benefit scale was 2.3 (sd=0.7). In other words in the four point ordinal scale from "no, not at all" to "yes, definitely", the foster carers who took part in the training programme perceived some benefit from it. There was no significant change in perceived benefit during the nine months follow-up period (t=1.46; 90df; p=0.15).

5.9 - Effects of the training on child self-esteem

This section describes the effect of the training programme on self-esteem, according to self-report scores on the Modified Rosenberg Self-esteem Scale.

Table 5.17 - The effect of study group on child scores on the Modified Rosenberg Self-esteem Scale at nine months post training

	Mean self-esteem score								
	Self-esteem score before training			*Self-esteem score after training*			*Change in Self-esteem score after training*		*p value* (t= - .08; 94 df)*
	M	sd	n	M	sd	n	M	sd	
Control group	29	5.3	49	32	6.5	43	2.97	5.6	0.93
Study group	28	5	61	31	5	53	3.08	7.2	

*p value for the t-test of whether the change in the score for the control group is the same as the change in score for the study group.

There was a significant improvement in self-esteem scores during the course of the study in both the control group (t= -2.2; 90 df; p=0.03) and the study group (t= -2.96; 112df; p=0.004).

When Self esteem scores before the training were subtracted from scores nine-months after training to form a variable called "change", there was no significant difference between the control and study groups.

The effect of the training on self-esteem scores was analysed using regression, taking into account the effects of demographic variables which were poorly balanced between the groups after randomisation. Again, a Huber correction was used to account for potential correlation between scores of children living in the same foster family.

Variables which showed a degree of imbalance after randomisation (table 4.1) were entered into the regression one by one. Only those variables which appeared to have a

confounding effect on the outcome (i.e. changed the magnitude of the effect of being in the study group) were retained in the final model and are shown in Table 5.16.

Table 5.18 - The effect of being in the study group on child scores on the Modified Rosenberg Self-esteem Scale after training, adjusted for pre-training scores, the number of siblings in the placement and the age and sex of the child

	Mean self-esteem score			
	Unadjusted self-esteem score in control group after training	*Unadjusted self-esteem score in study group after training*	*Adjusted difference in self-esteem score (95% CI)*	*p value (Wald test)*
Effect of study group on score	32	31	0.7 (-2.3, 3.7)	0.6

5.10 - Discussion of time 2 descriptive analysis

Attendance at the training programme

Only 52% of those foster carers offered extra training attended the programme. Anecdotal accounts from social workers involved with the study who have run training programmes in the past suggest that this compares well with attendance at many training events. Despite this apparently widely accepted view, that attendance at training events by foster carers is poor, and the obvious implications in terms of training opportunities missed and wasted resources, this issue does not appear to have been explored by researchers. New models for providing training have attempted to address this problem, including the Skills Based Training provided by British Agencies for Adoption and Fostering Central and Northern Region (Hutchinson, 1997).

Breakdown of placements

A limitation in the assessment of breakdown rate in this study is the likelihood of bias inherent in asking fostering and adoption officers to decide whether a placement was successful or not. The rate of placement breakdown is inevitably a sensitive issue

among social workers because placement failure may be seen as the result of social work practice, at least in part. Therefore despite using a clear definition of placement status, it is likely that social workers will tend to rate placements as more successful than they were, i.e. to rate more placements as being "positive planned moves" and fewer as "breakdowns".

The overall rate of breakdown of placements in this study is difficult to compare with other studies due to the manner in which the rate has been calculated. In most studies, the denominator is the placement itself, whereas in this study the denominator was the family. Nineteen percent of families experienced a breakdown of placement during the study. Since the average number of children in each family was 1.5, the overall breakdown rate of individual placements is likely to be at least 13%. This is a lower rate than found in the 1960s by Parker, where there was a breakdown rate of 48% over five years with over 70% (34%) occurring in the first two years (Parker, 1966), but only slightly lower than rates found in more recent studies (Berridge and Cleaver, 1987; Strathclyde Regional Council Social Work Department, 1991; Strathclyde Regional Council Social Work Department, 1988; Borland et al., 1991).

The association between social class and placement breakdown

The significant association between the social class (deprivation category) of the foster family and breakdown in placements is interesting. The higher the deprivation category, the lower the breakdown rate. This does not appear to have been previously addressed in the literature. Dando and Minty, however, found that foster mothers who said they had had unhappy experiences in childhood were seen by social workers as being good foster carers, perhaps due to an ability to identify with the children in their care (Dando and Minty, 1987). Most children placed with foster carers come from very deprived backgrounds and perhaps the foster carer's ability to identify with the child extends to material circumstances and cultural attitudes. In the USA, Barth and Berry found that an increased rate of breakdown of adoptive placements was associated with a higher educational level in the adoptive mother (Barth et al., 1988). This might be associated with more educated parents having expectations which are at odds with the adoptee's potential, leading to interpersonal stress and hence breakdown.

The association between the number of children previously fostered and placement breakdown

There was a marked increase in the odds of breakdown of placements during the study when foster carers had looked after more than 30 children previously. There could be various reasons for this finding. Firstly, a high breakdown rate in a foster family may allow more children to be placed with that family; a breakdown in placement creates an unfilled place in which another child can be accommodated. As most local authorities have difficulty recruiting foster carers, that place is likely to be filled quickly, unless there are serious reservations about the family's ability to foster. There is some evidence for this. In the research on temporary placements done in Strathclyde Region in the early 1990's, it was found that doubts about foster carers' ability to care for children were rarely recorded in social work files and the assessment of foster carers' skills and understanding tended to emphasise positive aspects of the family. Berridge and Cleaver found evidence that the selection of foster placements was "a somewhat haphazard process". It may be that foster families in which there have been several past breakdowns are seen as "experienced carers" rather than being scrutinised as providing a potentially inadequate caring environment.

Secondly, in order to foster 60 to 140 children, at least some of these placements must have been very short and many may have been intended to be "emergency" placements. Such a placement may be more likely to break down due to the lack of prior planning secondary to its emergency nature. In the Berridge and Cleaver study (Berridge and Cleaver, 1987), only 10% of "short-term" placements broke down prematurely and 20% of "temporary placements" in the Strathclyde studies (Strathclyde Regional Council Social Work Department, 1988), but none of the studies specifically looked at emergency placements which are often so short that they rarely appear in cross-sectional studies. In order to take part in this study, there had to be a plan that the placement would last at least one year from the date of the start of the study, but many of those families taking part had a mixture of short and longer term placements at any one time. It would be interesting to examine the nature of caregiving in those families who have looked after large numbers of children and the types and circumstances of children being placed there.

A third possibility is that there is a "natural caregiving period" in life after which it is harder to nurture young children. This has been written about in the context of older

mothers still in a full caregiving role for sons or daughters with learning disabilities. Contrary to expectations, holding multiple roles seems to *enhance* the individual's psychological wellbeing and is unlikely to be detrimental to the child (Hong and Meilick Seltzer, 1995).

However, there is good evidence about the detrimental effects of multiple caregivers on children in institutions (Tizard and Hodges, 1978; Vorria et al., 1998b); perhaps being a carer of multiple children is also detrimental to the carer's ability to care. Foster carers may suffer "compassion fatigue" or "burn-out". This phenomenon-where there is a loss of job satisfaction and an increase in work-related stress-has been well documented for some of the other "caring professionals" when these professionals have had frequent contact with very traumatised clients (Starrin et al., 1990). Foster carers routinely work with children who have suffered separation and abuse, but are not able to "go home" at five o'clock or take holidays. In addition, many carers perceive the kind of support which is thought to be required to prevent burn-out as lacking (Triseliotis et al., 1998).

Lastly, it is important to note that only 10 carers had looked after more than 60 children previously. Although the these carers appeared to be 36 times as likely as those who had looked five children or less to have experienced a breakdown during the nine months of the study, there may have been other, co-incidental, reasons why these 10 carers were more likely to have experienced a breakdown in placement.

The association between time spent in care and placement breakdown

There was no association between breakdown rate and the total time spent by the child with the birth parents. As many children have gone into care then back to birth parents a number of separate times, this measure was an attempt to sum all periods of time spent living with birthparents, rather than in care, and should be the inverse of "length of time spent in care". The relatively small number of children on which this analysis is based might account for the lack of association. Berridge and Cleaver found no relationship between the age a child first went into care and placement outcome, but did find an association between the total time children had spent in care and placement outcome (Berridge and Cleaver, 1987).

The study set out to see whether offering extra training to foster carers would have a beneficial effect on the emotions and behaviour of the children in their care and reduce the rate of breakdown of placements. If a benefit could be demonstrated, this would be

a cost-effective way of providing a mental health service to children in local authority care without requiring major reconstruction of services. There is a window of opportunity for a randomised controlled trial: when there is enough evidence already that would suggest an intervention may be effective, but not enough evidence for the issue to be considered proven. Two lines of evidence suggested that such an intervention might be effective. Firstly, non-randomised trials of similar quantities of training in ordinary foster care seemed to suggest a benefit (Boyd and Remy, 1978; Guerney and Wolfgang, 1981; Levant and Slattery, 1982). Secondly, two randomised controlled trials of "specialist" foster care showed benefit (Chamberlain and Weinrott, 1990; Chamberlain et al., 1992) in terms of both behaviour problems and improved retention of foster carers.

Summary

Nineteen percent of the families which looked after these children had experienced a breakdown of placement during the nine-month course of the study and breakdowns were associated with higher social class (lower deprivation category) and having fostered larger numbers of children in the past.

5.11 - Discussion of the effects of the training programme at nine months post training

Effects of the training on emotional and behavioural functioning and breakdown of placements

This trial did not demonstrate a beneficial effect of the training on emotional and behavioural functioning. It is tempting to speculate that there may have been a beneficial effect of training on emotional and behavioural functioning which could have been demonstrated had the sample size been larger (see Figure 5.4), but the teacher ratings, which show an effect in the opposite direction, suggest otherwise. It may be that foster carers, in the group randomised to training, tended to view the behaviour of the children in their care slightly more positively, but there was no actual change in behaviour in school which could be observed by teachers. Even if a larger sample size were to result in narrowed confidence limits and a statistically significant effect as rated by foster carers, such an effect is likely to be small. For example, there was only a 4% decrease in foster carer SDQ scores and a 6% decrease in RAD scores; even if these

changes were statistically significant, they would probably not be important in public health terms.

An important reason for failing to find an effect of training may be the dilution of the effect by non-attendance. However, as non-attendance might be seen as an intrinsic feature of training of foster carers and there might be systematic differences between carers who attended and those who did not, it would not be illuminating to analyse the results of attenders only.

The effect of the training on the rate of breakdown in placements

The trial did not demonstrate a benefit of the training on the rate of breakdown of placements. The analysis of unadjusted data appeared to demonstrate a (7%) difference in breakdown rate between the study group and control group, but this effect was diminished by entering into the logistic regression the number of children previously looked after by the foster carers. There was a statistically significant difference between the number of children previously looked after by foster families in the control and study groups (see Table 4.1) and there was a also a statistically significant association between the number of children previously looked after and the rate of breakdown of placements, so this variable was having a confounding effect on the association between study group and breakdown rate.

Effects of the training on children's self-esteem

Despite there being no effect of the training on self-esteem of the looked-after children, self-esteem increased in both groups during the course of the study. The most likely reason for this is that foster care has a beneficial effect on children's self-esteem, a very positive message for participants. On the other hand, since children were not randomly allocated to foster care, other factors could play a part. For example, the children may have felt valued by virtue of being in a research project and the giving of "certificates of participation" after the first interview might have enhanced this. Also, the breaking up of the large regions into smaller local authorities, which happened shortly before the start of the study, could have altered support for children in foster care in ways which were beneficial to the children's self-esteem. This, however, seems unlikely as most social workers and foster carers involved in the study seemed to perceive this transition as having been a difficult one in which basic services suffered while new structures were put in place.

Effects of the training on foster carers' attitudes

Those who took part in the training maintained a perception, over nine months, that the training had been of benefit, in terms of their ability to look after children, their relationship with the child and the child's behaviour. This is an optimistic finding when compared with the findings of the pilot study. The pilot study participants perceived benefit from the training in terms of their own ability to look after children, but did not think the effects of the training were likely to be passed onto the child due to other influences (Appendix 1). The participants of the training in the trial, however, did perceive a positive effect on the child. It is interesting, therefore, that when the whole sample reported on their confidence and negative attitudes towards the child, no benefits of the training were noted. This supports the possibility that non-attendance may have diluted the effect of training.

Attendance at training

Any effect of the training has been diluted by those who failed to attend. As can be seen from Table 5.1, approximately 70% of those foster carers who were randomised to training but did not attend apparently failed to attend for insurmountable reasons. If training is to succeed, it has to be recognised that foster carers lead more complex lives than most families, often looking after children from more than one birth family, each with their own birth parents and social worker. In addition, many aspects of childcare, including babysitting, have to be dealt with formally through the social work department. It is clearly difficult for foster carers to find three full days, free of other commitments, to attend training. One innovative method of training delivery won a National Training Award in 1997. Foster carers were offered 9 full days of training over a three year period and a diploma was awarded on completion. Training was offered as morning, afternoon or evening half day sessions and there were various opportunities to attend each. Fifty-seven percent of those enrolled completed the course. This may well be a beneficial model of training in that it is flexibly delivered, potentially allowing a better rate of attendance as there is a built-in opportunity for catch-up. It offers an intermediate amount of training between that offered in this study and that offered in the successful trials of "specialised" foster care and would be worth formal evaluation (Hutchinson, 1997).

Summary

A three day training programme for foster carers, focussing on communication skills, was enjoyed by participants and was perceived as improving their abilities to look after children, their relationship with the child and the child's behaviour. It did not, however, have any significant effect on the children's emotional and behavioural functioning, the rate of breakdown of placements, the confidence of foster carers or on negative attitudes towards the child.

Chapter 6 - General discussion

6.1 - Analysis of sample characteristics at baseline

The study was not set up as a cohort study, so the analysis of the characteristics of the sample at baseline has certain limitations. Firstly, because the rate of recruitment was only 42% and involves only 121 families, (see Figure 2.1), the sample does not approximate the general population. Despite the fact that there were no significant differences in deprivation category or breakdown rate between participants and non-participants, there may be important unknown differences which confound the associations which have been examined. Secondly, there was no attempt made to measure potential confounding factors at the design stage of the study. Certain sample characteristics were measured, but these were chosen with the randomised controlled trial in mind, because previous research had suggested they might affect the outcome of training. The analysis of baseline characteristics was, therefore, opportunistic, and any associations found should be seen as simply providing hypotheses for future research. For this reason, no attempt was made to determine the proportion of the variance explained by the variables used in the analyses or to generate a predictive model of the emotional and behavioural functioning of children in foster care. In addition, the analysis of associations between emotional and behavioural problems and abuse and neglect was hampered by the lack of variance in the sample in terms of abuse. As 93% of the children had a known history of abuse and neglect and it is likely that virtually all had suffered grossly inadequate parenting, it would be unwise to make strong statements about certain forms of abuse being associated with poor emotional and behavioural functioning.

Despite these caveats, the results of the baseline analysis are interesting in that they support the findings of other authors (McCann et al., 1996) that over fifty percent of children in foster care appear to have some degree of emotional and behavioural problems. There have been various recent moves towards better assessment of the mental health needs of children in foster care, in particular the development of the "Looked After Children" forms. These forms are intended to be completed after children have been in local authority care for a few weeks, and require the social worker to provide information about the physical and mental health of the child. Unfortunately, some Scottish local authorities have not yet piloted these forms due to scarce resources.

Children coming into local authority care in Scotland are not, therefore, guaranteed an assessment of their mental health needs.

The findings that emotional and behavioural problems are associated with previous sexual and emotional abuse are also of interest. The association between past sexual abuse and later psychosocial problems is well known (for example (Mullen et al., 1994). The detrimental effects of emotional abuse, however, have been less well recognised and this form of abuse is often overlooked even by mental health professionals (Thompson and Kaplan, 1999). In addition, the association between abuse and attachment disorders has not previously been studied. This is a particularly important issue as, unusually, the diagnostic requirement of "grossly pathogenic care" has been included in the psychiatric classification of these disorders (American Psychiatric Association, 1994). Future research should address this issue in a sample with greater variance for abuse and neglect.

A more optimistic finding is that the self-esteem of children participating in the study improved significantly during the nine months of the study. It is possible that there was an effect of the investigator, or of other unknown factors acting on the self-esteem of the whole group, but there is a strong suggestion that foster care itself improved the self-esteem of these children. This is an issue certainly worth further study as it is possible that improved self-esteem could be associated with later improvements in the emotional and behavioural functioning of children in foster care.

6.2 - The effect of training on the emotional and behavioural functioning of children in foster care

The study tested the effect of three full days of extra training on the emotional and behavioural functioning of children in foster care. Three days of training sounds like a small amount over a nine-month period when compared with, for example, the continuing professional development of doctors. However, nearly fifty percent of carers had not attended any training at all during the course of the study, so an extra three days was a major intervention. Also, from the results of the pilot study (Appendix 1), the content of the training was deemed, by carers, to be relevant and beneficial. If a benefit could be demonstrated in terms of an improvement in the emotional and behavioural functioning of the children, this would be a cost-effective way of benefiting the mental health of children in local authority care without requiring major reconstruction of services.

Timing of the trial

There is a window of opportunity for a randomised controlled trial when there is enough evidence already that would suggest that an intervention might be effective, but not enough evidence for the issue to be considered proven. Two lines of evidence suggested that such an intervention might be effective. Firstly, non-randomised trials of similar quantities of training in ordinary foster care seemed to suggest a benefit (Boyd and Remy, 1978; Guerney and Wolfgang, 1981; Levant and Slattery, 1982). Secondly, three randomised controlled trials of "specialist" foster care showed benefit (Chamberlain and Weinrott, 1990; Chamberlain et al., 1992; Clark et al., 1994) in terms of both behaviour problems and improved retention of foster carers.

Limitations and strengths of the study

The low recruitment rate of only 42% is a problem because of potential selection bias (see *"Can the results be generalised?"* below). Randomised controlled trials were originally used in agriculture. There is a lot more involved in asking human beings to do something for which there may be no reward than in, for example, moving crops around (Oakley, 1993). For a study in which the participants know that they may have to stop everything and attend a training programme for three days, perhaps such a response-rate is as good as it is possible to achieve. Recruitment rates of under 50% are not unusual for trials of interventions which require a substantial time commitment on the part of the participants (Moynihan et al., 1998; Perry et al., 1999).

There was also greater attrition in the group randomised to training compared to the control group, possibly for similar reasons. It is easy to imagine busy foster carers agreeing to participate in a trial in the hope that they will be randomised to the group which only has to complete questionnaires. This differential attrition could have accounted for the significantly lower number of children previously looked after by carers in the study group compared to the control group (the only significant imbalance in the randomisation process-see table 4.1). Those who had looked after larger numbers of children might have been more likely to decide, upon reflection, that they did not require extra training. This would have been a more important problem had the training effected a significant difference in any of the main outcome measures. In such a case there would be a concern that subtle differences between those who actually participated in the trail after randomisation compared to those who withdrew might have accounted

for the effect. This would be an important issue to consider in any future trial in this population.

In other aspects, the trial came close to a genuinely pragmatic approach. There were few inclusion criteria resulting in a heterogeneous sample which seems to have approximated the general population of Scottish foster families, there was no attempt to prevent participants from attending other training or support groups and the intervention itself was modelled on something local authorities could reasonably afford if it were to be used in future.

A major problem was the low (52%) attendance at the training sessions. This, however, may well be an intrinsic feature of training foster carers within the current organisation of services, rather than a failing of the study. Full costs, including child care, transport and food, were reimbursed, transport was arranged where the training location was less accessible and carers were contacted personally in the week before training to iron out any practical difficulties. These features of the programme were based on the suggestions of carers at the pilot study. A training programme which won a National Training Award in 1997 also offered all of the above features. In addition they offered a creche where it was desired and, most importantly, the training was offered on a much more flexible basis with possible catch-up sessions Monday to Saturday and an intensive publicity campaign in the area before each programme. Despite these features, the attendance rate was almost identical to that of the current study at 57% (Hutchinson, 1997).

One apparent error in the design of the study was the failure to include measures of foster carers' attitudes to their parenting and to the training before the intervention began. However, assuming reasonable randomisation, this should not be a problem as the groups should be almost identical before the intervention. Many of the very large clinical trials are simply analysed by t-test of the post-treatment outcomes after the intervention (for example, (UK Prospective Diabetes Study Group., 1998). In a trial such as the one discussed in this thesis, taking the pre-intervention scores into account improves the precision of the results, but omitting these scores should not markedly alter the effect.

Except for one trial of specialised fostering (Chamberlain et al., 1992), there is little evidence of a definite effect of an intervention at the level of the foster carer having an effect on the children. Taking this into account, one criticism which could be levelled at

the study is that it focussed on the emotional and behavioural functioning of children as the main outcome. A more appropriate main outcome might have been the parenting stress of the foster carers and there are various measures of this, e.g. the Parenting Daily Hassles scale (Crnic and Greenberg, 1990). However, the high prevalence of emotional and behavioural problems in fostered children is of major concern and there is no direct evidence that improving the quality of parenting among foster carers will improve the emotions and behaviour of the children they look after. If an effect of training on foster carer's parenting stress had been found, further studies directly assessing emotional and behavioural functioning would still have been necessary to answer the primary question. To have assessed both parenting stress and emotional and behavioural functioning would have been a possible option, but the desire to assess all possible outcomes has to be balanced with the possibility of weakening any effects found due to the use of multiple outcome measures and of reducing the response-rate due to overloading the participants. In addition, the lack of effect of the training on foster carers' confidence in their caring ability is perhaps an indication that focus on parenting stress would not have been fruitful.

Quantitative measures of psychosocial functioning are necessarily coarse-grained. It is possible that there were important differences between the study and control groups which were not picked up by the outcome measures used. For example, had it been feasible in terms of both time and money, observational measures of attachment styles of foster children with their carers might have revealed differences as a result of the training. Future research in this field may point to more appropriate outcome measures for this group and, if so, differences between the study and control group could be ascertained at a later date.

The size of the study was sufficient to study quantitative outcomes, such as the various questionnaire scores, but was insufficient to usefully investigate the rate of breakdown of foster placements. For example, to have detected even a 30% difference in breakdown rate (for example from 19% to 13%) would have required a sample size of at least 1376 (688 in each group). This was not, therefore, a useful outcome measure to have included in the study, other than to provide interesting trends for future investigation.

Rationale for using an "intention-to-train" analysis

Any effect of the training has been diluted by those carers who were randomised to the study group but did not attend (see Figure 2.1). There are situations in which the use of

"compliance data" i.e. information about those who actually took part in the intervention, can be informative, but analysis which includes those who did not "comply" remains the principle for reporting most trials (Pocock and Abdalla, 1998; Armitage, 1998). There are various benefits of this "pragmatic" approach. Firstly, the benefits of randomisation are maintained. In other words, if a difference is noted between the study group and control group, it can be ascribed to the intervention. In this study, if analysis excluded non-attenders and the results suggested a benefit from the training, it would be impossible to be certain that other factors, such as greater motivation towards fostering in those who actually attended, had not been the primary cause of the improvement. Secondly, a "pragmatic" trial is intended to approximate routine practice (Roland and Torgerson, 1998; Armitage, 1998). It is logical to include non-attenders in the analysis because an ability to attract potential participants is a crucial and integral part of any training programme. Seventy percent of those who did not attend training, but had been invited, failed to attend due to reasons associated with the complexity of foster care itself (see Table 5.1). Such difficulties in the delivery of training must be addressed before training can be deemed successful.

Can the results be generalised?

It is important to assess the degree to which this sample of foster carers is representative of the general population of foster carers. Certainly, in terms of social class (deprivation category), the sample is no different from Scottish foster carers as a whole, both from the data collected in this study and from the recent study by Triseliotis et.al. (Triseliotis et al., 1998). The rate of breakdown of placements was slightly higher in the group which did not take part in the study, though not significantly so. It is possible that there are important but more subtle differences which have not been accounted for, such as the relationship with social work and motivation to take part in training activities. A major criticism of some randomised controlled trials is that once the sample has been selected, with various exclusion criteria, and a large proportion of individuals have decided not to participate, the results are based on a population so different from the general population that they are not useful for ordinary practice. That is one reason why, in this study, a very heterogeneous group of foster carers from a wide population base was used. In addition, a great deal of time and money was spent on advance publicity in the form of meetings, leaflets and posters, to ensure that as many potential participants as possible were alerted that the trial was taking place and of its purpose.

Sleeper effects

The follow-up of the families was only carried out over a nine month period, but it is possible that the benefits of a research intervention may not emerge until later years (Cox, 1993). In some studies of early educational interventions for deprived children in the USA, the major differences between study and control groups emerged as the children reached their teens and early adulthood (Weikart, 1998). It would be worth following up the participants in this study in future years to see whether the training participants' perception that it was of benefit to their relationship with the child has been borne out in objective differences in emotional and behavioural functioning, stability of placements or other psychosocial indices such as school performance.

Was a randomised controlled trial the best way to address the question?

The results of the pilot study, a small qualitative investigation (Appendix 1), were virtually identical to those of the randomised controlled trial; that foster carers perceived a benefit of the training in terms of their relationship with the child and their ability to care, but those benefits were not passed on to the child. So why did the trial proceed? Because the findings of the small qualitative study would not have been considered good evidence by the wider scientific community, and for good reason. Had the pilot study been carried out in another local authority, had those few carers who participated noticed improvements in their relationship with the child which were in fact due to other factors, or had the person who facilitated the focus group asked different questions, the pilot study might have produced different results. As Oakley argues in her critique of the randomised controlled trial, the trial methodology has served the public well by systematising what might otherwise be the uncontrolled experimentation on subjects using untested interventions (Oakley, 1993). The randomised controlled trial is currently seen as the "gold standard" for evidence in all areas of health care, but it has to be recognised that, particularly for social investigations, there is also a place for other types of research. For example, this trial may have been more useful had a greater proportion of the budget been spent on qualitative research prior to the trial proper. A larger scale qualitative investigation of foster carers' training needs-as perceived by themselves, social workers and adolescents in foster care-may have identified some of the problems which now seem obvious, such as low attendance and the need for flexible access to training, while also generating useful findings in its own right.

What do the results imply?

A three day training programme within existing services is clearly inadequate to make a useful impact on the massive emotional and behavioural problems of children in foster care in Scotland. There is good evidence that, for children with emotional and behavioural problems, "specialist" schemes are beneficial (Chamberlain et al., 1992) but, as is clear from this and other studies, more than half of children in "ordinary" foster care are suffering from emotional and behavioural problems. Some "specialist schemes" now place all teenagers requiring accommodation by the local authority. As Shaw and Hipgrave mention in their survey of specialist services in the UK, "during a discussion of the 'hard to place' teenager, [we posed the question] what would an 'easy-to-place teenager' look like". As 93% of the children in the current sample have been abused or neglected, this question could probably be posed about the younger children too. The term "specialist scheme" covers a wide range of services, but the successful schemes evaluated by Chamberlain's group included weekly group sessions lasting two hours, three to five hours of family contact with project workers each week, individual meetings with foster carers and project staff at least weekly, telephone contact with project staff three times per week, individual work with young people on a weekly basis and a significantly improved fostering allowance. Recently, researchers in the USA have suggested that we need to go beyond even "specialist" foster care into "professional" foster care, in which carers are paid a substantial annual salary in addition to good training and support (Testa and Rolock, 1999). Clearly to institute such a radical re-organisation of services for all children would require a major effort of political will and a massive injection of finance, but perhaps this is what these very vulnerable children need and deserve. The cost of such a service must be offset against the probable lifetime savings to the health and penal services, not to mention the potential avoidance of family breakdown and future generations of children in care. Such a service requires urgent evaluation.

Conclusions

Around 60% of the children in this sample of children in foster care are suffering from emotional and behavioural problems, associated with past emotional and sexual abuse. Despite this, there was a significant improvement in the self-esteem of the children during the course of the study. A three day training programme which focussed on communication was well received by participants who perceived a benefit in terms of

their ability to care and their relationship with the child, but the training failed to have an impact on the emotional and behavioural functioning of the children.

From this and other studies, it is clear that the level of problems experienced by children in foster care in the UK warrants urgent action. This study has, at the very least, provided some direct evidence that three days of training within the normal structure of services is insufficient to improve the emotional and behavioural functioning of children in foster care.

Recommendation

A large-scale study of a more intensive intervention than that evaluated here should take place and would involve a radical re-organisation of services similar to the model used by Chamberlain et al (Chamberlain et al., 1992). It should begin with extensive qualitative research to determine the likely needs of children in terms of mental health assessment and treatment, and training and support for their carers. The aim of such a study would be to assess whether such a radical re-organisation of services could benefit the emotional and behavioural functioning of all children in foster care.

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Appendix 1 - Pilot study

This paper is due to appear in the July issue of Adoption and Fostering

Foster carers speak about training

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Foster carers speak about training

Summary

This paper describes the qualitative pilot study of a new training programme for foster carers. It forms part of a larger research project which will examine the effect of the training on the emotions and behaviour of looked after children, due for completion in 1999. The aim of the training programme was to help foster carers develop their skills in communication and increase their confidence in their ability to cope with their foster children's feelings and behaviour. Carers felt that this aim was achieved but that, due to outside factors, the benefits were unlikely to be passed on to the children.

Various training programmes for foster carers have been described, often without formal evaluation (Blumler et al. 1987) (Gilchrist and Hoggan, 1996; Sharp, 1988; Sanders and McAllen, 1995). The Foster Carers' Training Project is one of the first research projects of its kind to evaluate the effect of a training programme for foster carers on children's emotional and behavioural functioning. It is being carried out in Central Scotland in close liaison with Social Work Departments and is a randomised controlled trial in which foster carers with children aged five to sixteen are randomly allocated to the study group (new training programme plus routine support) or control group (routine support only). Data collected on the children in both the study and control groups include a psychiatric screening questionnaire, a self-esteem questionnaire and measures of weight and height.

This paper describes the pilot study of the new training programme which took place in one local authority prior to the randomised controlled trial. It used a fairly simple and inexpensive method for evaluation -the focus group- in which carers are given the opportunity to reflect, with a facilitator, on the training they have received. The advantage of the focus group is that the dialogue between the participants themselves provides information on the training (Kitzinger, 1994), thereby ensuring that it is the carers' and not the group leader's opinions which emerge.

One of the authors, Helen Minnis (HM), worked as an orphanage doctor in Guatemala in 1991/92 and found that the Guatemalan staff found it inappropriate to talk to children about difficult past experiences. A genuine scientific question had been raised by these professionals: "Is improved communication with vulnerable children helpful to their psychological well-being?" This implies the testable hypothesis: "Does training of child carers in communicating with vulnerable children improve communication between the carers and the children, and therefore improve the psychological well-being of these children?" On her return to Britain, HM came across the Save the Children Development manual "Communicating with Children; Helping Children in Distress" (Richman, 1993) which appeared to be fulfilling a clinical need in several countries, but had not been evaluated in any systematic way. Since many of the most vulnerable children in the UK are looked after by foster carers, this seemed the obvious group in which to explore this question.

The Training Programme

The focus of much current practice in parent-training is the management of difficult behaviour for children with conduct disorder (Webster-Stratton and Herbert, 1994) and many foster carers have already had training on the management of difficult behaviour (National Foster Care Association, 1994). One assumption underlying the project is that helping carers understand the roots of the child's behaviour will help them to communicate better with the child and that this in turn will help the child's sense of well-being and behaviour. Another assumption is that difficult behaviour is often a means of communication, therefore a greater understanding of the child's non-verbal communication should help the carer to manage difficult behaviour. These assumptions are reflected in published accounts of parent training (Webster-Stratten, 1994, Beimans, 1990).

The training was developed by Clare Devine (CD) and HM and was based on the Save the Children manual and on CD's experience of developing and delivering training for foster carers (Devine and Tate, 1991). The manual provides a framework on which trainers can develop a three-day training course and is aimed at children involved in wars and areas of disaster who have experienced loss, trauma and abandonment. It discusses the practical problems that arise when talking to children, how to build up trust and how to give emotional and practical support.

The aim of the training was to help foster carers develop their skills in communication and increase their confidence in their ability to cope with their foster child's feelings and behaviour. The course ran over two consecutive days with a third "recall" day a week later. This gave carers the opportunity of testing out/ putting into practice their learning from first two days. Although there was some didactic input, training methods acknowledged the importance of using participants' experiences in the learning process (Knowles, 1984). The training was mainly consultative with discussion and dialogue being the main vehicle for learning. Carers were encouraged to bring their own experiences, knowledge and skills to be harnessed and developed.

The participants were a self selected group of seven foster carers all of whom had volunteered to participate as an opportunity to learn and to contribute to the project. The group consisted of six women and one man, including one single parent; each representing a different family. Five of the seven were experienced foster carers and all the carers identified the children as having behavioural problems. In order to create a safe learning environment, time was spent on introductions both of foster carers and the children they looked after. It was acknowledged that although not physically present, the children were in the room and would be the focus of much of the discussion. It was important, therefore, for the trainer to hold on to not just the participants' identity but also the children's, recognising the uniqueness of each and enabling participants to make links between communicating with children in general and the specifics of each child. The agreement of ground rules clarified roles and responsibilities in the learning process, made it explicit that participants were free to share only that which they wanted to, and established that what was discussed would be confidential to the group unless information emerged which had to be taken further.

The first day was an opportunity for carers to identify problem areas in relation to the child's behaviour and communication and to introduce them to the idea that communication takes place through behaviour as well as words. At the end of the first day carers were given the task of being aware of the communication which took place that evening, with the foster child, and to feed this back to the group at the beginning of day two. On the second day, participants were asked to think about and discuss difficult experiences they had had with communication and what helped or hindered them in dealing with these. This part of the process led them to identify how feelings as well as facts influence communication. Issues of attachment, separation and loss were also discussed. At the end of day two, carers were asked to use their learning to inform their

communication with the child over the next week and to prepare a small presentation to the group about their observations. The third day, therefore, was an opportunity to reflect on their and the child's communication and to receive feedback from the trainer and other group members. Much of the day looked at positive aspects of helping children talk about their past and present experiences. Placement endings were considered and their impact on carers and children alike. The training was brought to a close by discussing support for carers, how to identify when a child may need specialised help and what various professionals could provide.

Focus Group

The focus group was held immediately after the last day of the training programme and was facilitated by Tony Pelosi (TP); a psychiatrist and supervisor of the project, but someone who was unconnected with the training in the minds of the foster carers. It was audiotaped, transcribed and analysed by content analysis, where the text is systematically examined, the main themes drawn out and any contradictions to these themes noted (Berg, 1989).

Results

The themes are outlined below:

The Effect of the Trainer:

The carers were unanimously positive about CD's facilitation of the group. The dialogue shows the importance of the trainer listening carefully to the participants and quickly getting a grasp of their individual and family situations.

> X: "I think Clare made a difference to this course, because she was on the ball. She very quickly got to know us, got to know our children...she took everything in..."

Differences between this course and other training courses

There were two very important conclusions on this topic. Firstly, the carers felt that the new course had allowed them to learn from each others' experience by using their own live material, whereas in more structured courses there is less opportunity for this. Carers commented:

A: "There's a certain kind of force to a meeting that's structured. There's maybe a speaker coming and you're not really conferring with one another as easily as we have on this training session."

B: "I feel sometimes, in training, you don't really take your case studies seriously because you think, 'ach, that really didn't happen, somebody's just composed it'. You can't imagine it happening. But however bizarre somebody here's experience is, we know that it's true. And you have to think before you start answering because that's affecting their lives...and I think you'll remember it better as well because it's true."

Secondly, in a less formal framework such as this one, there is more opportunity for participants to clarify their understanding of issues using feedback from the group:

C: "...if someone, say Isobel, wrote up something and I wasn't quite sure exactly what she was meaning, I could question it....And she could elaborate on it....So you actually get a true answer."

The Effects of the Training Programme on Fostering

The carers concluded that the training had improved their ability to relate to the child. For example:

A: "I feel maybe I'm stopping, I'm stopping and listening to the child rather than carrying on. Maybe you're doing something, you listen to him but you don't really hear what he's saying and since this course I've stopped what I was doing and I can hear what he's saying"

No-one contradicted this conclusion and, as this was one of the main aims of the training, it seemed very optimistic. However, the message was not so positive when the potential effects on the children were discussed:

The Effect of the Training on the Children

Most carers thought the benefits of the new training programme were unlikely to impact on the children as there were other important adults in their lives, namely teachers, social workers and, in particular, birth parents.

> T: "It's very, very hard. No matter what training you go through, what information you give the child, it's their trust in the natural parents, and they'll listen to their natural parents."

> P: "... you have twenty-four hour care for that child, but if you've still got a child that's going backwards and forwards for access, as much as he's yours he's going backwards and forwards. You're not going to change them."

The birth family is clearly seen, by some carers, as an impediment to their own beneficial effects. Carers appear to feel that their work is being undone during access visits and that they are, therefore, unable to effect change in the children they look after.

Punishment and Difficult Behaviour

It was clear that this group of carers already had a sophisticated understanding of discipline and difficult behaviour:

> T: "...when you talk about punishment, you talk about the bad sense of punishment. People tend to think that punishment's a smack, which in our aspect of fostering you have to miss out, unless it's a mistake thing..."

> [agreement from the group]

> P: "Difficult behaviour that we were talking about, has got a reason. So you shouldn't be punishing the child for it anyway, because if you understand it, and you can divert them and stop the bad behaviour, you'll not need punishment anyway."

They also felt that the course went into behavioural problems quite deeply compared to previous training:

A: "I think we've actually gone into it quite deep. We've always been asking for managing difficult behaviour training. And it's been brushed over, and touched upon, and I feel we've got into it quite deep."

Facilitator: "In previous things you've done, it has been brushed over?"

A: "Yes."

T: "We have one or two seminars on behavioural problems, and we got a little out of it but..."

A: "I've got nothing out of it."

Working With Social Workers

One theme was the feeling of lack of support from social workers:

E: "... social work sometimes don't give the support they should. They tend to stand back and leave you to just get on with it."

Facilitator: "Now did this few days help you in that regard?"

E: "Well we've realised I think we tend to help each other sometimes more than what the social worker does."

This criticism came with some constructive comment, however:

K: "This course could be really good for some social workers to come on."

P: "Yeah. ...we've all decided..."

[laughter]

P:...a mixture, not for us and then for social workers, a definite mixture."

There was also a recognition that foster carers and social workers do a different and complementary job:

> T: "We're not doing a job, we're doing it because we're wanting to, whereas the social worker's doing the job because he's good at it."
>
> P: "He's only really got theory, where we've got the practical."

Refreshments and Accommodation

The theme which took up the largest proportion of the discussion was that of the refreshments and was clearly of great importance to the participants. Foster carers lead busy and complicated lives. If training is to be a positive experience, the quality of food and accommodation must be good enough to create a relaxed and enjoyable atmosphere.

> B: "Well see we had been up, most of us had been up from seven o'clock to get children organised, so we'd had our breakfast at say, quarter past seven, and we've got lunch at half twelve, we get three sandwiches and a yoghurt, which really wasn't..."
>
> C: "Us here, going on a course is like a, not a holiday, but it's a wee special time for you to yourself, to get... you want something nice. If you were going away out for the day, you wouldn't sit down with a pack of sandwiches, you'd go for a meal."

The quality of refreshments were also intimately associated in carers' minds with status.

> E "I was at one; it was residential workers, social workers and foster carers... we went downstairs at lunchtime and had a bar lunch, and then back up to the room."
>
> T: "That was because social workers were there."
>
> [laughter]

Discussion

There has been a rapidly growing body of evidence from the developmental psychology field that the ability to talk coherently and fluently about one's early life is a characteristic of a "secure" adult with respect to attachment relationships (Main, 1985, 1991). When adults are "insecure" with respect to attachment, they talk about early attachment relationships in a disjointed or even contradictory way. This implies that putting together one's personal attachment history so that it forms a fluent "story" in one's mind may be a crucial developmental process. This must be a particularly difficult task for children in foster care who have suffered separations and/or losses, sometimes on a number of occasions and in a variety of locations. Perhaps a foster carer who has undergone training in understanding the ways in which a child can communicate and in helping the child find more appropriate forms of communication may be better placed to facilitate this.

The task of looking after children is complex. It was apparent from the focus group that busy carers did not always pay attention to children's verbal and non-verbal communications. However a facilitative, consultative method of training and the opportunity to discuss the children directly was felt by carers to improve their ability to communicate. On the basis of their day to day care of looked after children, foster carers are constantly in communication with them. This communication needs to be listened to and recognised as a source of information and understanding about each child. In addition, the carer's emphasis on the provision and quality of refreshments as a reflection of status and value is an important indication of the need for clear communication to carers of their crucial role as part of a professional team.

Despite the carers feeling that they were better able to understand and manage the children's behaviour, they did not feel optimistic, due to the existence of other influences, about the impact of training on the child. It was clear that, in some cases, the birth family was seen as an impediment to the work the carers were doing. Research on the effects on children of visiting by birth parents is difficult to interpret. Children who have regular access with birth parents are less likely to have emotional and behavioural problems (Cantos et al. 1997) and it would be easy to assume that the access with birth parents is causing better emotional health in the child. However it is equally plausible that a good early relationship with birth parents has resulted in both better emotional health in the child and a better current relationship. There may be

circumstances where contact with birth parents is not helpful for the child, and this area needs further research. One innovative project involved birth parents in training with foster carers (Gilchrist and Hoggan, 1996) and it would be interesting to examine the feasibility of such joint training and its effects on looked after children on a larger scale. In the randomised controlled trial it will be possible to evaluate the impact of the training on both the foster carer's attitudes to their parenting and on the child's emotions and behaviour.

Conclusions

- Participants felt that a training course with the key elements of attentive listening to and reflecting back of their own experiences while covering factual material on communication, attachment, separation and loss had a beneficial effect on their ability to understand the roots of children's behaviour.
- Participants felt that the training helped them to communicate better with the children they looked after.
- Participants felt that the benefits of training may not affect the child's emotions and behaviour due to the other influences.
- Participants felt that social work support was vitally important and would value the opportunity of joint training regarding communicating with children.
- Good quality accommodation and refreshments make carers feel more valued.

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Appendix 2 - Reactive Attachment Disorder: a cluster analysis

This paper was submitted to the Journal of the American Academy of Child and Adolescent Psychiatry and after revisions was rejected as being too specialised for that journal. It is shortly to be resubmitted to another journal.

Reactive Attachment Disorder-a Cluster Analysis

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Abstract

Objective: To make a preliminary analysis of the validity of the Attachment Disorders as described in the current psychiatric classification systems.

Method: A cluster analysis on items in a parent-report questionnaire grouped sixty-seven children, thought to be at high risk of Attachment Disorders, into three clusters. Associations between cluster membership, clinical diagnosis and history of maltreatment, as recorded in case-files, were examined.

Results: Two clusters corresponded to Attachment Disorders. Membership of an Attachment Disorder cluster was not associated with recorded maltreatment. Forty-two percent of children in the Disinhibited Attachment Disorder cluster and twenty-one percent of children in the Reactive Attachment Disorder cluster had been given no psychiatric diagnosis by their clinician, and more than forty percent of children in each Attachment Disorder cluster had been given a diagnosis of conduct disorder or ADHD.

Conclusions: A proportion of children attending mental health clinics may suffer from symptoms of Attachment Disorders but go undiagnosed by their clinicians. The lack of association with recorded maltreatment casts doubt on the usefulness of maltreatment as a diagnostic requirement for Attachment Disorders.

Keywords: Reactive Attachment Disorder; Cluster Analysis; Maltreatment

Introduction

Associations between insecure infant attachment and psychosocial problems in later life have been demonstrated (Cohn, 1990; Crittenden, 1985; Troy and Sroufe, 1987, Goldberg, 1997) and the Strange Situation (Ainsworth, 1979) has been validated in several cultures (Harwood, 1992; Sagi 1990). However, the Strange Situation is not an adequate tool for clinical use when used alone. It was developed to examine group, not individual, differences, has a narrow age-range and is demanding and time-consuming

to use (Greenspan and Lieberman, 1988). Although there is overlap between mother-infant attachment patterns and social functioning, these are not synonymous and insecure attachment is compatible with normal social behavior (Sroufe, 1987). Meta-analysis (van Ijzendoorn, 1992) suggests that at least a third of children in normal samples are "insecurely attached."

Conversely, some children have attachment problems of a severity which warrants the label "disorder" (Zeanah, 1996). This has been recognized by clinicians, and both ICD-10 and DSM-IV have included Attachment Disorders in the psychiatric nosology (World Health Organization, 1992; American Psychiatric Association, 1994). Since their inclusion, however, there has only been one published study examining the validity of these clinical syndromes (Boris et al., 1998). Regarding Reactive Attachment Disorder, ICD-10 states that "there is continuing uncertainty regarding the diagnostic criteria to be applied, the boundaries of the syndrome, and whether the syndrome constitutes a valid nosological entity" (World Health Organisation, 1992). Both classification systems emphasize disturbances in the child's social relatedness. In each there is a disinhibited type which is characterized by indiscriminately friendly behavior, (Disinhibited Attachment Disorder in ICD-10; Reactive Attachment Disorder, Disinhibited Type, in DSM-IV) and an inhibited type characterized by withdrawn or hypervigilant behavior and ambivalent social responses (Reactive Attachment Disorder in ICD-10; Reactive Attachment Disorder, Inhibited type, in DSM-IV) . Both mention grossly pathogenic care as part of the etiology, but in DSM-IV this is a diagnostic requirement (American Psychiatric Association, 1994). We will use the ICD-10 terminology.

The Disinhibited Attachment Disorder (DAD) classification has developed from the theory of institutionalization (Zeanah, 1996). It is characterized, according to ICD-10 by "an unusual degree of diffuseness in selective attachments during the first five years" and is thought to be due, in part, to the failure of opportunity to develop selective

attachments because of frequent changes of caregiver (World Health Organisation, 1992). The effects of institutionalization have long been noted; in 1725 a Spanish Bishop wrote "in the home for abandoned children, they become sad and many die of sadness" (Spitz, 1945). From observations of institutionalised children, Spitz (1945) concluded that the crucial factors in preventing "hospitalism" (increased susceptibility to infection, physical and intellectual delay) were adequate stimulation and the presence of the mother. Various groups have demonstrated the behavioral and intellectual sequelae of institutionalization (Dennis and Najarian, 1957; Goldfarb, 1945a; Vorria et al., 1997). "Indiscriminate" giving of affection and a tendency to go off with strangers has also been described (Goldfarb, 1945b; Tizard and Hodges, 1978; Chisolm et al., 1995). Chisolm et al. (1995) found indiscriminately friendly behavior displayed by institutionalized Romanian children adopted to Canada, but this did not correlate with security of attachment. While the samples were fairly small and the measurement of attachment security non-standard, the hypothesis was posed that this lack of correlation may evidence the adaptive nature of indiscriminately friendly behavior for forming new attachments, at least in the short term (Chisolm et al., 1995), echoing the early suggestions of Goldfarb (1945b). Markovitch et al. (1997) failed to show associations between the attachment security of Romanian adoptees in Canada and either age at adoption or length of institutionalization. Clearly there is no simple relationship between the institutional experience, attachment styles and Disinhibited Attachment Disorder.

The Reactive Attachment Disorder (RAD) classification has developed from observations of maltreated children in whom distorted affective communications and abnormal social interactions have been described. Examples include, "affective withdrawal" (where the child is inattentive to stimuli around her), lack of pleasure in interaction with others, unpredictable responses, shallow affective communication, anger or crying which does not respond to comforting (Gaensbauer and Sands, 1979) and "approach-avoidance" where the child approaches with the head averted or by walking backwards (George and Main, 1979). One of the most significant advances in

attachment theory has been the description of "disorganized/disorientated" behavior in the Strange Situation (Main and Solomon, 1986). This has been shown to be present in 80% of maltreated children (Carlson et al., 1989) and is characterized by "dazed behavior, disordering of temporal sequences, (e.g. strong avoidance followed by strong proximity seeking) simultaneous display of contradictory behavior patterns (approaching with head averted, gazing strongly away while in contact), incompleted movements, and undirected expressions of affect" (Main and Solomon, 1986). Zeanah suggests that this is the only insecure category approaching pathology in its own right (Zeanah, 1996).

Zeanah (1996) has criticized the Attachment Disorder categories for various reasons: they encompass broad domains of social behavior rather than focusing on attachment; they are really maltreatment syndromes and do not reflect the massive contribution of developmental psychology to attachment theory; *disorders* of attachment ought to represent more profound disturbances than are reflected by insecure attachment *styles*, yet there is no data available for evaluating any of the criteria. He proposes an alternative classification with three major types: *nonattachment* (broadly similar to the DSM-IV Reactive Attachment Disorder), *disordered attachments* (distortions of the child's ability to use the caregiver as a secure base from which to explore), and *disrupted attachment* where loss of the major caregiver results in a grief response (Zeanah, 1996; Lieberman and Pawl, 1988).

While this is one of the few attempts to critically evaluate the attachment disorder classifications, it too has its problems. The etiology of the disorders is far from clear (Zeanah, 1996) so there is little evidence to justify calling them "maltreatment syndromes." There may be instances where abuse or neglect have not been identified, yet where the relationship between the primary caregiver and the child is grossly distorted, resulting in the group of symptoms described as an Attachment Disorder. In such a case, recognition of those symptoms would be useful in identifying a child at risk, particularly if it can be shown that the Attachment Disorders as currently classified

are associated with later psychopathology. The long term sequelae of insecure attachment in normal samples have not been shown to be universally negative, and although there is a large body of research demonstrating the negative effects of maltreatment (Cichetti and Toth, 1995), both insecure attachment and maltreatment are risk factors which are only probabilistically related to adverse outcomes. Perhaps the role of attachment is central, yet other abnormalities also need to be present for the syndrome to be clinically important. There are good arguments for a severe "cutoff point" in clinical diagnosis: avoidance of labeling normal children and ensuring clinical resources are used effectively. There are also problems inherent in the term "nonattached." Maltreated children may be selectively attached to their caregiver albeit in a distorted way and institutionalized children may have close, nurturant relationships, particularly with peers (Bank and Kahn, 1982; Cicirelli, 1995; Freud and Dann, 1951).

The attachment disorders were included in the psychiatric classification systems because of a perceived clinical need (ICD-10, 1994). It is essential to establish whether the symptoms believed to constitute the syndromes do describe a group of children with current psychopathology. Only when this has been achieved can epidemiological investigations of prevalence and outcome take place and the true importance of the syndromes be established.

Methodology

Parents of 67 children attending outpatient mental health clinics in South London completed a questionnaire about their child's behavior which focussed on the symptoms of the Attachment Disorders. Cluster analysis on the questionnaire items determined whether children could be grouped according to these symptoms, then a Discriminant Analysis demonstrated how independent the derived clusters were from each other.

Data collection

Questionnaires were returned by the careers (parents or foster careers) of one hundred children aged four to fourteen years attending four child psychiatric clinics in South London. Any prior psychiatric diagnoses were unknown to the authors at the time of data collection. Thirty-three questionnaires had to be discarded due to missing data, leaving sixty-seven for analysis. The discarded group had a somewhat higher mean age (9.12 years versus 8.24 years: t=14.36 on 28df; p=0.005) but the distribution of sex, ethnicity, social class and the number of children in the family did not differ significantly between the groups. Data on children who attend are routinely gathered on "coding sheets" by their psychiatrists and kept on a central database. This is typical of the level of detail gathered in a routine clinical assessment and has been shown to be adequate for research purposes (Goodman and Simonoff, 1991). Data was also gathered from case-files.

Sample Selection

All children referred for psychiatric assessment and/or treatment with a history of either child protection proceedings for abuse or neglect, or of local authority care, were included in the study. Ninety-two percent were white, 16% currently adopted or fostered and 48% from families in social classes IV or V (main breadwinner in an partly-skilled or unskilled occupation) or where the main breadwinner was unemployed. Forty-one percent were referred by social services for psychiatric assessment, often during child protection proceedings, 35% were referred by clinicians because of aggressive behavior and 24% for other problems including anxiety, depression, school refusal and autism.

Statistical Analysis

A cluster analysis was carried out using the Ward Method. Cluster analysis (Aldenderfer and Blashfield,1984) is a multivariate statistical technique which creates a

classification system by producing "clusters" or groups of highly similar individuals. Clusters have properties including "density," "variance" and "separation." Density refers to "a relatively thick swarm of data points in space when compared to other areas of the space." Variance is the degree of dispersion of each point from the center of the cluster. Separation is the degree to which clusters overlap or lie apart in space. The Ward Method is one of the family of "hierarchical agglomerative" methods which sequentially merge **n** individuals into groups. Originally, each group contains one individual, hence there are **n** groups. Individuals are sequentially merged, until a single group containing all individuals results. The sequence of these mergers can be represented by a dendogram (see Figure 1). The number of clusters therefore depends on the level of the hierarchy (Aldenderfer and Blashfield, 1984) and the success of the method depends on an a priori concept of what clusters are expected (Everitt, 1993). While this could seem arbitrary, if the data did not naturally cluster into the expected groupings, an unformed swarm of points in space with no obvious cluster structure would be the result. Cluster Analysis has been used previously in the classification of child psychiatric disorders (e.g. Wolkind and Everitt, 1974; Sevin et al., 1995) and for identifying risk groups of individuals within a normal population (Belsky et al., 1996). It was used here in preference to other mulivariate techniques, such as factor analysis, because the aim was to cluster *individuals* rather than questionnaire items. In the cluster analysis, individuals were grouped according to their responses to 22 questionnaire items using Ward's method. Although the ratio of items to subjects is rather low, Ward's method is particularly stable under these conditions (Milligan, 1980). For each cluster, the mean of cluster members' scores for each questionnaire item was obtained. The nearer the mean score to three (*"Exactly like"*), the better the item described the members of that cluster. The nearer the mean score to zero (*"Not at all like"*), the more poorly the item described the members of that cluster. Discriminant analysis (Everitt and Dunn, 1991) was carried out to assess how well separated the three clusters were and to check the previous interpretation derived at from examination of cluster means.

Results

Questionnaire Design

While the first author was working in a Guatemalan Orphanage in 1992, a qualitative case study of attachment disorders in institutionalized children was undertaken. The symptoms as manifest in these children, plus the ICD-10 and DSM-IV diagnostic criteria for Reactive Attachment Disorder and Disinhibited Attachment Disorder, comprised the items in the original questionnaire. The questionnaire was piloted with the carers of fifty-two children attending the four London clinics and modifications resulted in a sixty-eight item questionnaire which was used as the basis of the study. For a cluster analysis to be valid, there must be a reasonably high ratio between the number of cases and the number of items on which the cases are clustered, therefore the questionnaire had to be shortened. Where the same domain had been investigated using more than one item, the item for which there was most missing data was deleted. Twenty-two items remained. After the cluster analysis, five further items were dropped as they did not adequately distinguish between clusters. The resulting questionnaire has good internal consistency, with a Cronbach's alpha of 0.70, as do the items describing the two relevant clusters: the items describing the DAD cluster have a Cronbach's alpha of 0.66 and those describing the RAD cluster, 0.70. Test-retest reliability (repeat questionnaire completion after one month) gives an intraclass correlation of 0.77. In this population, questionnaire scores (totaling across all questions) were approximately normally distributed with a mean of 21.3 and standard deviation of 8.71.

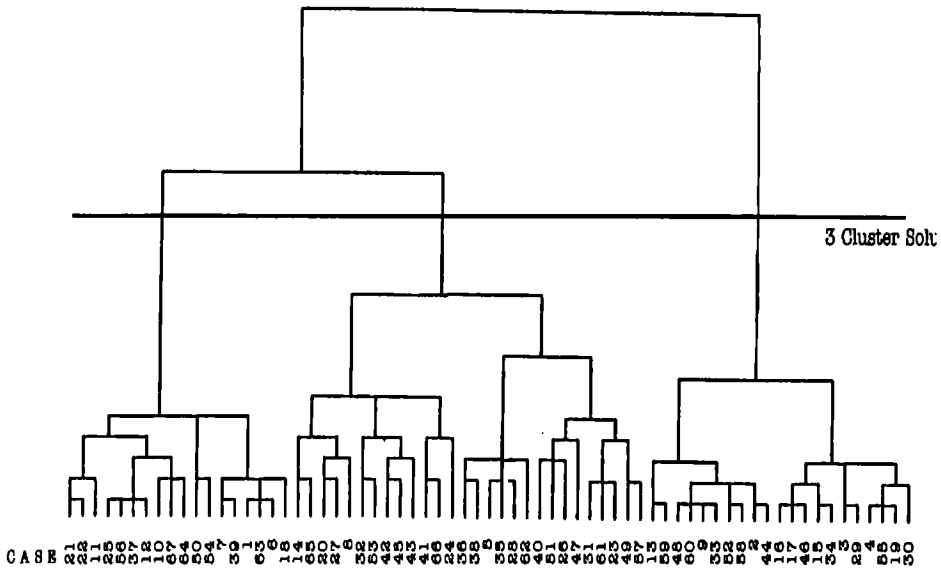
Cluster analysis

The three cluster solution (see Figure 1) was the most meaningful. The clusters are not mutually exclusive as a questionnaire item could describe two clusters yet distinguish them from the third. Items were judged to describe a cluster if: (a) the mean score was

more than 1.5 (i.e. the majority of individuals in the cluster were "exactly like" or "like" the item) and/or (b) the mean score was markedly higher than the mean score in at least one of the other two clusters.

Figure 1

Dendrogram using Ward Method

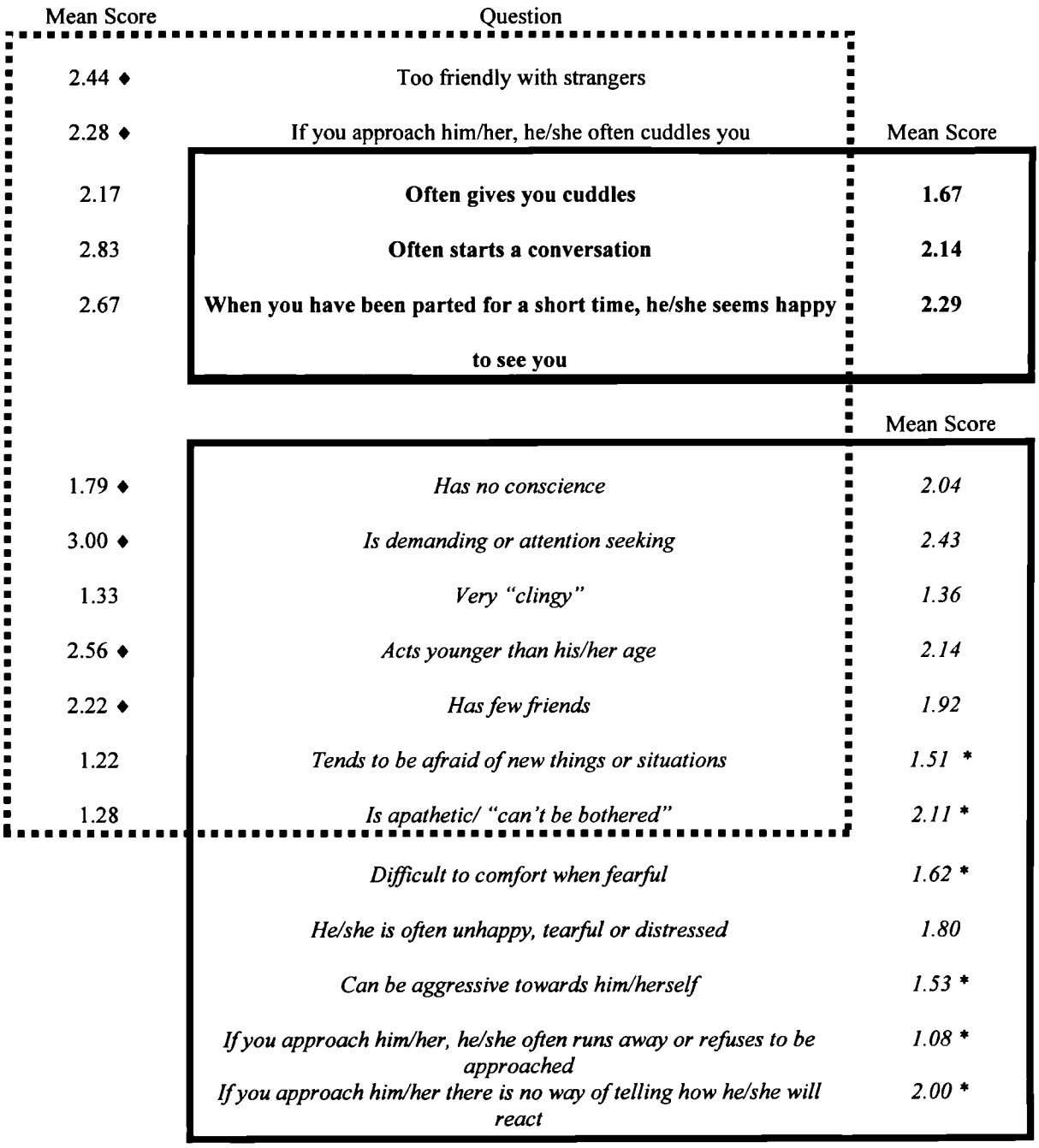


Individuals clustered according to the questionnaire items in Figure 2: Cluster 1 groups children showing features of the ICD-10 category of DAD and the DSM-IV sub-

category of Reactive Attachment Disorder, Disinhibited Type. Eighteen children (28%) were members of this cluster. Cluster 2 was described only by items which could be considered as normal social behavior. Each of these items also describes the DAD cluster, but in the "normal" cluster, mean scores are lower (i.e. the statements are less descriptive of children in the "normal" cluster than of those in the DAD cluster). Twenty-one children (31%) were members of this cluster. Cluster 3 groups together children showing definite features of the ICD-10 category of RAD and the DSM-IV sub-category of Reactive Attachment Disorder Inhibited Type. Twenty-eight children (41%) were members of this cluster.

Figure 2

Questionnaire Items and Clusters

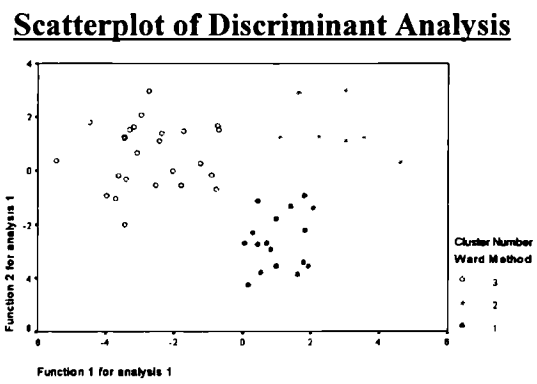


Cluster1, Disinhibited Attachment Disorder, is shown on the left with a broken border, Cluster 2, normal social behavior, on the upper right with a bold border and Cluster3, Reactive Attachment Disorder, is on the lower right in italics with a bold border. Stars and diamonds denote positive loadings of at least 0.25 for the first and second discriminant function, respectively.

Discriminant Analysis

The two discriminant functions are plotted in Figure 3. As there are 22 questionnaire items, the cluster analysis separates individuals in 22 dimensions. The discriminant analysis, however, represents the projection of the observations in those two dimensions which maximize the ratio of between group to within group variance of the points. Any other projection will therefore look less impressive. It is nevertheless interesting to see how well the clusters are separated and to note that each child in the sample belongs to one unique cluster. The first discriminant function discriminates between cluster 3 and the others. The items which have high loadings (>0.25) on that function are marked by stars in Figure 2; they represent almost all items that are unique to cluster 3 plus two items that also have high means in cluster 1. The second discriminant function discriminates cluster 1 from cluster 2. The variables which have high loadings on that function are marked by diamonds in Figure 2. The discriminant function analysis therefore confirms the interpretation based on mean scores.

Figure 3

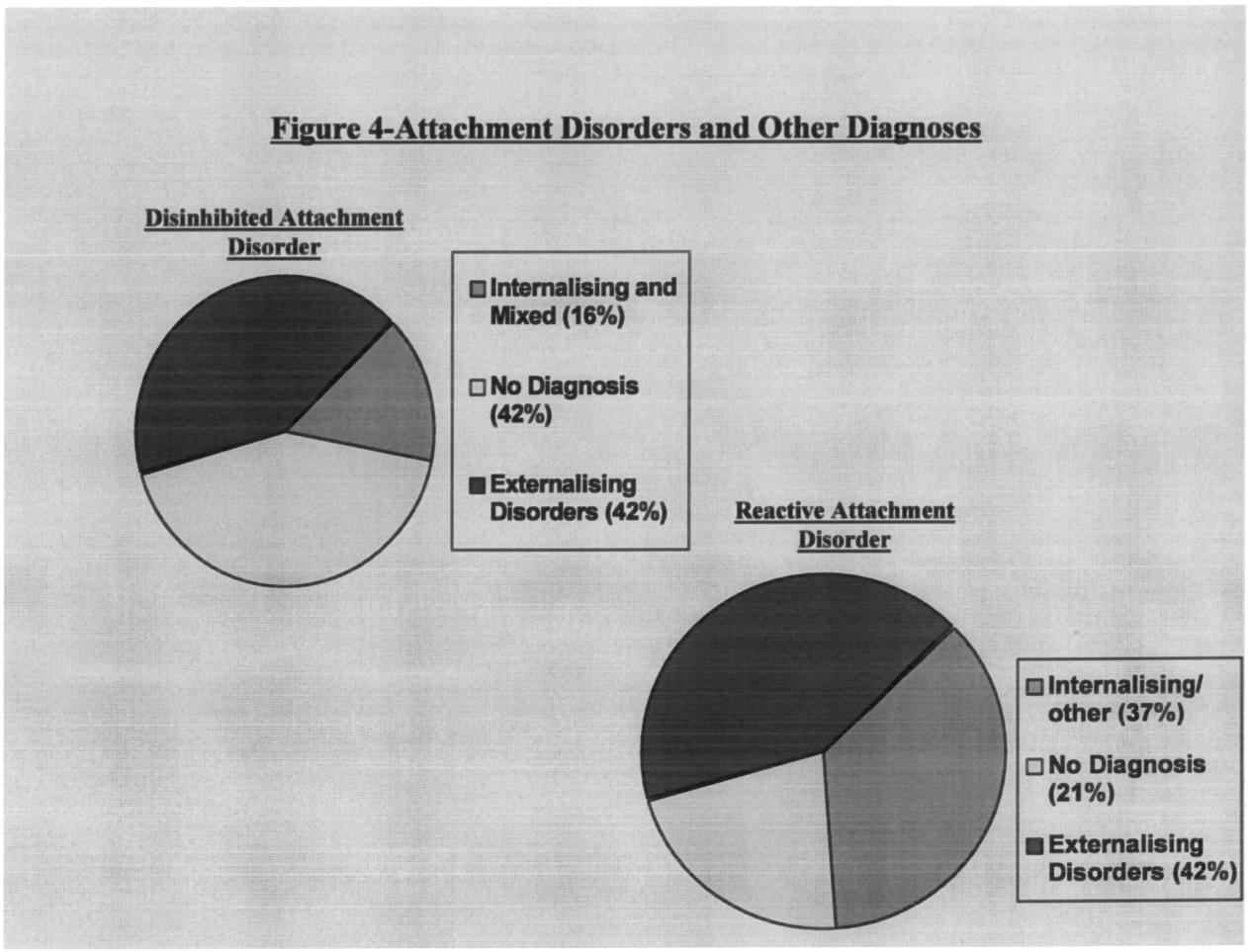

Scatterplot of Discriminant Analysis
Function 2 for analysis 1
Function 1 for analysis 1
Cluster Number
Ward Method
3
2
1

Characteristics of Cluster Members

There were more males than females in all three clusters (64% DAD, 74% RAD, 73% "normal behavior," NS). There were no significant differences in age, ethnicity or social class between the clusters.

Routine data regarding other diagnoses were available on 59 of the 67 clustered cases. 8 cases could not be identified because of missing hospital numbers. The diagnostic profile of the sample is shown in Figure 4. In both attachment disorder clusters, the prevalence of "externalizing" disorders (Conduct Disorder or Attention Deficit Hyperactivity Disorder) was 42%. A large percentage in both attachment disorder clusters had been given no diagnosis at all; 42% in the DAD cluster and 21% in the RAD cluster.

Figure 4-Attachment Disorders and Other Diagnoses



"Internalising" includes social, separation and phobic anxiety disorders; "mixed" includes mixed disorders of conduct and emotions; "externalising" includes ADHD and conduct disorder and "other" includes DAD(n=1), PTSD(n=1) and Autism (n=1).

The two attachment disorder clusters were combined for the analysis of maltreatment because numbers were small. 16 of the subjects had no data entered in this section of the item sheets and case notes were not available. The "no abuse" category included instances where it was not known whether or not abuse had occurred and the "abuse" category included instances where abuse was "dubious or minimally present." No cases in this sample had any record of neglect and it was not possible to tell from case notes whether specific enquiry had been made for this important type of maltreatment, therefore no analysis of neglect could be made. As can be seen from Table 1, members of an Attachment Disorder cluster were no more likely to be recorded as having suffered physical abuse than members of the other cluster. More members of the Attachment Disorder clusters had been sexually abused, but numbers were small and the difference was not statistically significant.

Table 1-Attachment Disorders and Abuse

	Physical Abuse		
	No PA	PA	Total
AD	28(85%)	5(15%)	33
No AD	15(83%)	3(17%)	18
Chi Squared 1.88; p=0.389 on 2df			
	Sexual Abuse		
	No SA	SA	Total
AD	22(81%)	5(18%)	27
No AD	14(100%)	0	14
Chi Squared 2.95; p=0.857 on 1df			

PA = Physical Abuse; SA = Sexual Abuse; NSA = No Sexual Abuse;

AD = Attachment Disorder

Discussion

Substantial developmental data has highlighted the likely clinical importance of disordered early attachments. For example, the insecure-resistant Strange Situation category is associated with child and adolescent anxiety disorders (Sroufe, 1988), while the insecure-disorganized/disorientated category is associated with both maltreatment (Carlson et al., 1989) and with later aggressive behavior (Lyons-Ruth, 1996). How these risk factors are associated with the clinical symptoms of RAD is unknown and a task of future research will be to demonstrate whether or not insecure attachment styles are necessary for the development of RAD, as they are clearly not sufficient.

The developmental course of RAD is also unknown. The disorders have so far mainly been described in children under five, although Richters and Volkmar (1994) have described them in school aged children. It is unlikely that the symptoms would be identical in pre-school, school-age children and adolescents and in a longitudinal study of ex-institutional adolescents, indiscriminate early attachments appeared to be replaced by attention-seeking behavior in older children (Tizard and Hodges, 1978; Hodges and Tizard, 1989). Epidemiological studies with larger samples are needed to elucidate the exact etiology of the disorder, its longitudinal course, manifestations at different ages and the efficacy of interventions.

This preliminary study has various limitations. Using parent-report to diagnose a disorder in whose etiology the parent has supposedly had a part to play is inherently problematic, however, it appears that parents have been able to classify their children into groups corresponding to Attachment Disorders. Validation of this method against other measures is crucial but, at present, clinical diagnosis cannot be used as a "gold standard" as the diagnosis of RAD is rarely made. For example, only one diagnosis of an Attachment Disorder was made by clinicians during two years of data collection in this study. It is also unknown whether the results might be generalized to the population at large, as this study was confined to high-risk children. Research is needed with children in foster care, institutions and the general population before the usefulness of the criteria on a wider scale can be ascertained.

Interpreting a cluster analysis is somewhat subjective. Several questionnaire items only distinguish the two Attachment Disorder clusters from each other by degree and are not specific for either. This implies that RAD as defined by DSM-IV, a single syndrome with two dimensions, is the most appropriate classification. Cluster 2 contains only

items which could be considered normal social behavior, therefore there is a strong argument for accepting the existence of a bidimensional syndrome called RAD which is separate from the non-attachment disordered population.

The three items which describe cluster 2 (the "normal behavior" cluster) are each also present in the DAD cluster and describe sociable behavior. Children in the DAD cluster display these features to a greater degree than those in the "normal behavior" cluster and it seems likely that this greater than normal degree of sociability is a cardinal feature of DAD. It is easy to imagine that such a constellation of symptoms might not precipitate referral to specialist services and in fact more children in the DAD cluster were given no psychiatric diagnosis than in the RAD cluster. However certain features of DAD, such as being too friendly with strangers and having few friends, may place such a child at high risk of abuse or of future psychosocial problems.

The prevalence of Attachment Disorders in this high-risk clinic population was 69%, but no estimation can be made of population prevalence. DSM-IV suggests that RAD is rare and, if this is true, it may account for a low recruitment rate of subjects in three of the study clinics (the fourth specialized in families with child protection issues). The other possible reason for this low recruitment rate is referral bias and there may be a disproportionately low rate of clinic referral children in the care of local authorities to child psychiatric services. There is evidence from community studies (Mullen et al., 1994) that only a small proportion of people who suffered abuse in childhood presented to psychiatric services. Perhaps without clear diagnostic boundaries for Attachment Disorders, sufferers have been under-diagnosed and under-treated.

It is not surprising in view of the relative rarity of institutional care of children in Great Britain that the prevalence of DAD was considerably lower than RAD in this sample. DAD may, however, be a much greater problem worldwide. The large numbers of children in the Attachment Disorder clusters who were also given a diagnosis of an externalizing disorder warrants further investigation. Because of the small numbers

involved it was not possible to investigate Conduct Disorders and ADHD separately, but attachment disorders could potentially mimic both of these.

A surprising result was the lack of association between abuse and attachment disorders. In this high risk population, there are several possible explanations. Firstly, there may be no genuine difference between children who have been maltreated and those who have not in their expression of symptoms of Attachment Disorders. This would call into question Zeanah's assertion that the Attachment Disorders are simply "maltreatment syndromes" (Zeanah, 1996). Secondly, there may be genuine clinical differences between abused and non-abused children, but these differences are not captured by the current Attachment Disorder criteria. If this were the case it would be unlikely that these categories would prove to be useful clinically. Thirdly, the results might reflect the difficulty in getting a history, during childhood, of abuse. If this were the case, and differences were shown in the long-term outcome for children diagnosed as having an Attachment Disorder, these categories could prove useful in identifying children at risk whether or not there is a history of abuse. In addition, none of the children in the sample had a history of neglect or emotional abuse, but this may simply be because our knowledge of these problems is more scant (Crittenden and Ainsworth, 1989). It is possible that early neglect may be more important than abuse in the etiology of attachment disorders, but such detailed information on early rearing patterns is unlikely to emerge using current methods of history taking in a clinical setting. More research is needed, but these preliminary results do cast doubt on the usefulness of "pathogenic care" as a diagnostic requirement for Attachment Disorders.

Clinical Implications

The existence of validated diagnostic criteria should help professionals to balance the weight of evidence in child protection proceedings and in early detection of children in need of intervention. There has been little research into interventions for children with Attachment Disorders. Until recently, these children may have been seen mainly by pediatricians where interventions focused on growth failure or feeding (Powell and

Bettes, 1992). More recently, infant-parent psychotherapy has been described with children diagnosed as having Attachment Disorders according to the classification described by Zeanah (1996). Improvements were noted post-treatment in maternal engagement, responsiveness and empathy (Lieberman and Zeanah, 1995), but effects on the later mental health of the child have not yet been described. One problem with such an approach is that the children were all 12 to 24 months old at the time of treatment and many children may not come to clinical attention until much later. The existence of diagnostic criteria which no longer include the requirement of a history of maltreatment might improve the referral-rate of young children who would otherwise only have presented once an externalising disorder was well established. The prognosis may be improved by early intervention, and trials with long-term follow-up will show whether this is the case. It is not known whether the kinds of parent-training programs used previously for children with conduct disorder (Webster-Stratten and Herbert, 1994; Routh et al., 1995) are useful in children with attachment disorders. The effects of the "intensive therapy" for Attachment Disorders used in certain clinics in the USA has only been evaluated in an uncontrolled before and after study (Goodwin, 1996). ICD-10 suggests that the syndrome should be responsive to changes in environmental circumstances (World Health Organization, 1992), but the effects of this have not been evaluated. It would be interesting to follow the course of Attachment Disorders when children in residential or foster care are adopted or returned to birth families.

This study shows that clinic children do fall into categories which correspond to RAD as described in DSM-IV. This is a potentially useful diagnostic category, but more research is required before this potential can be realized.

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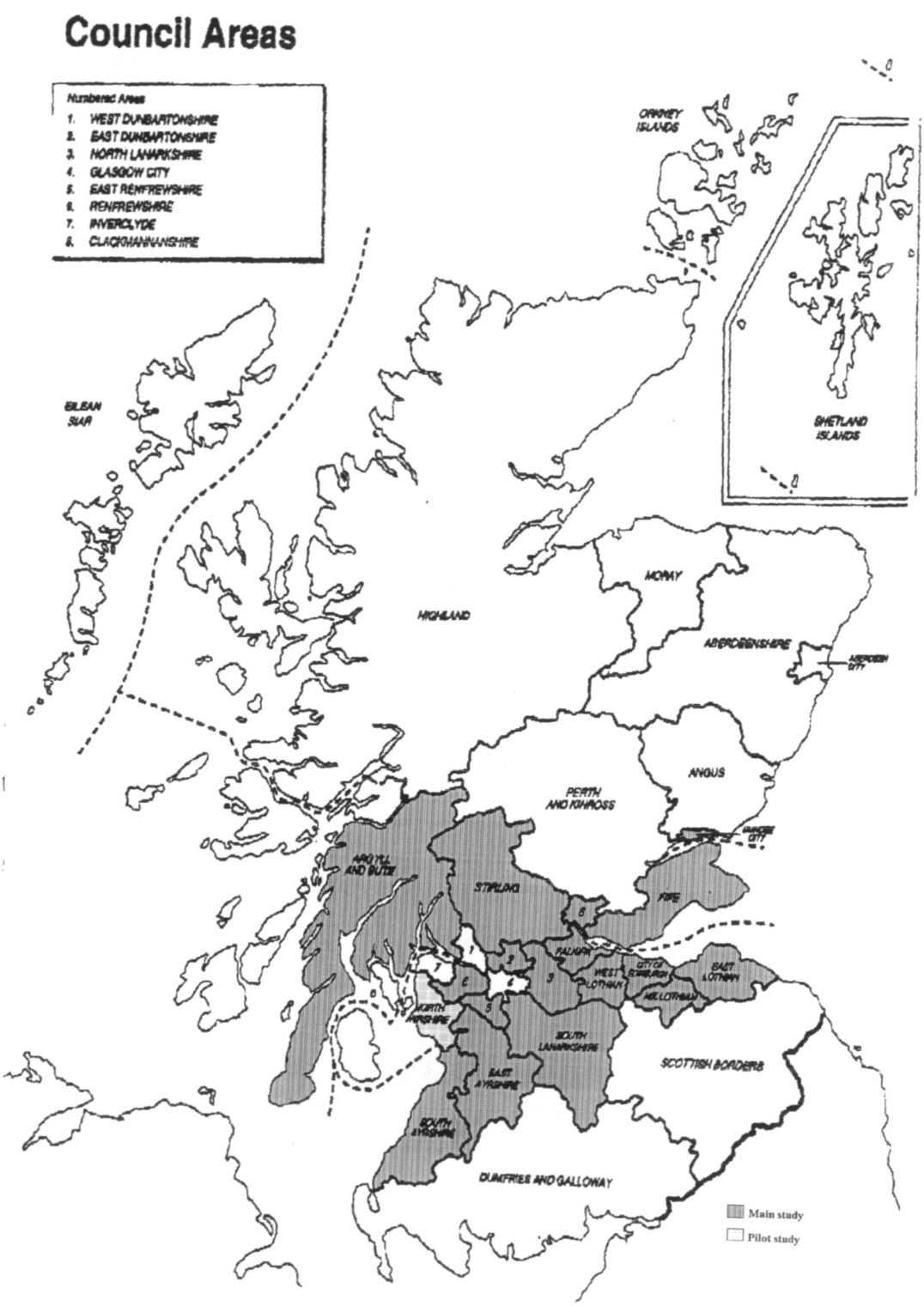
Appendix 3 – Map


Council Areas
Historic Areas
1. WEST DUNBARTONSHIRE
2. EAST DUNBARTONSHIRE
3. NORTH LANARKSHIRE
4. GLASGOW CITY
5. EAST RENFREWSHIRE
6. RENFREWSHIRE
7. INVERCLYDE
8. CLACKMANNANSHIRE
ORKNEY ISLANDS
SHETLAND ISLANDS
ELEAN SIAR
HIGHLAND
MORAY
ABERDEENSHIRE
ABERDEEN CITY
ANGUS
DUNDEE CITY
PERTH AND KINROSS
ARGYLL AND BUTE
STIRLING
FIFE
FALKIRK
WEST LOTHIAN
CITY OF EDINBURGH
MIDLOTHIAN
EAST LOTHIAN
NORTH AYRSHIRE
SOUTH LANARKSHIRE
EAST AYRSHIRE
SOUTH AYRSHIRE
SCOTTISH BORDERS
DUMFRIES AND GALLOWAY
Main study
Pilot study

Appendix 4 – Measures

Measures included are:

1.	Measure	Completed by:
2.	Strengths and Difficulties Questionnaire	Foster carers, teachers and children (carer version shown here)
3.	Reactive Attachment Disorder Scale	Foster carers
4.	Modified Rosenberg Self-esteem Scale	Children
5.	Checklist for background information about children	Social workers (over the telephone)
6.	Background information checklist about foster families	Foster carers
7.	Support/training checklist for foster carers	Foster carers
8.	Support/training checklist for local authorities	Local Authority Fostering and Adoption Officers

Child IDno.

Strengths and Difficulties Questionnaire

P4-16

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems daft! Please give your answers on the basis of your child's behaviour over the last six months.

	Not True	Somewhat True	Certainly True	For Office Use Only 4-5 / 6-11
Considerate of other people's feelings	☐	☐	☐	☐ 12
Restless, overactive, cannot stay still for long	☐	☐	☐	☐ 13
Often complains of headaches, stomach-aches or sickness	☐	☐	☐	☐ 14
Shares readily with other children (treats, toys, pencils etc.)	☐	☐	☐	☐ 15
Often has temper tantrums or hot tempers	☐	☐	☐	☐ 16
Rather solitary, tends to play alone	☐	☐	☐	☐ 17
Generally obedient, usually does what adults request	☐	☐	☐	☐ 18
Many worries, often seems worried	☐	☐	☐	☐ 19
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐	☐ 20
Constantly fidgeting or squirming	☐	☐	☐	☐ 21
Has at least one good friend	☐	☐	☐	☐ 22
Often fights with other children or bullies them	☐	☐	☐	☐ 23
Often unhappy, down-hearted or tearful	☐	☐	☐	☐ 24
Generally liked by other children	☐	☐	☐	☐ 25
Easily distracted, concentration wanders	☐	☐	☐	☐ 26
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐	☐ 27
Kind to younger children	☐	☐	☐	☐ 28
Often lies or cheats	☐	☐	☐	☐ 29
Picked on or bullied by other children	☐	☐	☐	☐ 30
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐	☐ 31
Thinks things out before acting	☐	☐	☐	☐ 32
Steals from home, school or elsewhere	☐	☐	☐	☐ 33
Gets on better with adults than with other children	☐	☐	☐	☐ 34
Many fears, easily scared	☐	☐	☐	☐ 35
Sees tasks through to the end, good attention span	☐	☐	☐	☐ 36

Overall, do you think that your child has difficulties in one or more of the following areas: emotions, concentration, behaviour or being able to get on with other people?

No	Yes-minor difficulties	Yes-definite difficulties	Yes-severe difficulties	FOR OFFICE USE ONLY
☐	☐	☐	☐	☐37

If you have answered "Yes", please answer the following questions about these difficulties:

*Do the difficulties upset or distress the child?

Not at all	Only a little	Quite a lot	A great deal	FOR OFFICE USE ONLY
☐	☐	☐	☐	☐38

*Do the difficulties interfere with the child's of everyday life in the following areas?

	Not at all	Only a little	Quite a lot	A great deal	FOR OFFICE USE ONLY
HOME LIFE	☐	☐	☐	☐	☐39
FRIENDSHIPS	☐	☐	☐	☐	☐40
CLASSROOM LEARNING	☐	☐	☐	☐	☐41
LIESURE ACTIVITIES	☐	☐	☐	☐	☐42

*Do the difficulties put a burden on you or the family as a whole?

Not at all	Only a little	Quite a lot	A great deal	FOR OFFICE USE ONLY
☐	☐	☐	☐	☐43
				44-49

Are you the	foster mother?	foster father?	other?	
	☐	☐	☐	☐50

Child IDno.	

The Reactive Attachment Disorder Questionnaire

In this section, for each statement please tick the box that best describes the child in your care.

	Exactly like my foster child	Like my foster child	A bit like my foster child	Not at all like my foster child	For Office Use Only
Tends to be afraid of new things or situations	☐	☐	☐	☐	☐1
Acts younger than his/her age	☐	☐	☐	☐	☐2
Is often unhappy, tearful or distressed	☐	☐	☐	☐	☐3
Is apathetic/"can't be bothered"	☐	☐	☐	☐	☐4
Can be aggressive towards him/herself e.g. using bad language about him/herself, headbanging, cutting etc.	☐	☐	☐	☐	☐5
Has few friends	☐	☐	☐	☐	☐6
Has no conscience	☐	☐	☐	☐	☐7
Is too friendly with strangers	☐	☐	☐	☐	☐8
Often gives you cuddles	☐	☐	☐	☐	☐9
Often starts a conversation	☐	☐	☐	☐	☐10
Very "clingy"/wants to be with you all the time	☐	☐	☐	☐	☐11
Is difficult to comfort when fearful/scared	☐	☐	☐	☐	☐12
Is demanding or attention seeking	☐	☐	☐	☐	☐13
If you approach him/her, he/she often cuddles you	☐	☐	☐	☐	☐14
If you approach him/her, he/she often runs away or refuses to be approached	☐	☐	☐	☐	☐15
If you approach him/her, you never know whether he/she will be friendly or unfriendly	☐	☐	☐	☐	☐16
When you have been parted for a short time, he/she seems happy to see you	☐	☐	☐	☐	☐17

The Modified Rosenberg Self-esteem Scale

		Agree a Lot	Agree a little	Not Sure	Disagree a Little	Disagree a Lot
1.	I am a useful person to have around	5☐	☐	☐	☐	☐1
2.	I can do most things as well as most people of my age	5☐	☐	☐	☐	☐1
3.	I haven't got much to be proud of	1☐	☐	☐	☐	☐5
4.	Sometimes I think I am no good at all	1☐	☐	☐	☐	☐5
5.	I feel I'm as good a person as anybody	5☐	☐	☐	☐	☐1
6.	I feel I can't do anything right	1☐	☐	☐	☐	☐5
7.	When I do something I always do it well	5☐	☐	☐	☐	☐1
8.	I'm not really getting anywhere with my life	1☐	☐	☐	☐	☐5

Scoring: Items 1, 2, 5 and 7 scored 5 to 1.
Items 3,4,6 and 8 scored 1 to 5.

Checklist for Background Information
(for use as a telephone checklist with social workers)

Trial number

Child number

Name of carer

Respondent

Parental Rights

Circle Yes or No, write a numerical value or name, M for male or F for female
Please complete if you are the child's social worker

Name of the Child		
Age of the Child		
Does the child have siblings in same placement?	Yes	No
Age & sex		
Age & sex		
Age & sex		
Age & sex		
Does the child have siblings elsewhere?	Yes	No
Age & sex		
Age & sex		
Age & sex		
Age & sex		
Does the child have a history of physical abuse?	Yes	No
Does the child have a history of sexual abuse?	Yes	No
Does the child have a history of emotional abuse?	Yes	No
Does the child have a history of neglect?	Yes	No
Has the child been in residential care before?	Yes	No
If yes, how many previous placements?		
Has the child been in foster care before?	Yes	No
If yes, how many previous placements?		
Does the child have a physical disability?	Yes	No
Please specify		
Does the child have a learning disability?	Yes	No
Please specify		
Reason child came into care		
What is the frequency of access visits?		
Anything else		

Background Information

We need some basic information to get started. Please fill in as much as you can and return it with your consent form. If there is any information you can't supply, don't worry as I can probably get it from the social work department. If there is any information which will not fit on the form, please write it on the back.

Your name				
Your spouse/partner's name				
Your age				
Your spouse/partner's age				
Have you had "Choosing to Foster" training?	Yes	No	Please circle	
Have you had any other kind of training for foster carers?	Yes	No	Please circle	
Have you looked after foster children before?	Yes	No	Please circle	
If yes, how many				
Do you have children of your own (biological children)?	Yes	No	Please circle	
Please write their names below:	Age	Sex	Living in family home? (please circle)	
Child 1			Yes	No
Child 2			Yes	No
Child 3			Yes	No
Child 4			Yes	No

PTO.

	Full name of each child you are looking after	Age	Teacher's name and address	Teacher tel. no.
Child 1			Name: Post code:	
Child 2			Name Post code:	
Child 3			Name Post code:	
Child 4			Name Post code:	

Support/Training Checklist

Please complete the following questions about support and training during the past year.

Section 1

1. In the past year, have you attended any support groups for foster carers?	Yes	No

Please circle

2. If yes, how many have you attended	

Section 4

6. In the past year, have you attended any training courses for foster carers?	Yes	No

Please circle

If yes, please write below the titles of the courses, and their approximate length in hours. If you need more space, please use the back of the page.

Title	**Length**

Support/Training Checklist

The period since the setting up of the New Unitary Authorities has been a difficult time for everyone, and many of the new Authorities are still in the process of getting training for foster carers up and running.

In order to find out what effect our training has had, we need to know if the carers might have taken part in any other training or support. Please complete the following questions about any support and training for foster carers in your area during the past year.

Local Authority_____

Your Name_____

Your Title_____

Section 1

1. In the past year, has your department been running regular support groups for foster carers?	Yes	No
2. In the past year, have foster carers in your area been running their own support groups?	Yes	No

Please circle

If no support groups are running in your area, please go on to *Section3.*

Section2

3. Do support groups include any structured teaching/training?	Yes	No
4. Do support groups invite speakers to talk on training issues?	Yes	No

Please circle

Section 3

5. Does each foster family in your area have a linkworker or family social worker?	Yes	No

Section 4

6. In the past year, have there been any training courses for foster	Yes	No

carers which used material developed internally in your department?		

If yes, please write below the titles of the courses, and their approximate length in hours. If you need more space, please use the back of the page, quoting the question number.

7. **Title**	**Length**

8. In the past year, have there been any training courses for foster carers run internally which used material developed out-with the department?	Yes	No

If yes, please write below the titles of the courses, and their approximate length in hours.

9.

Title	**Length**

10. In the past year, have local foster carers attended any training courses for foster carers run by bodies out-with the social work department?	Yes	No

If yes, please write below the titles of the courses, their approximate length in hours and the name of the organisations or individuals who ran the training.

11.

Appendix 5 - Information sheets, consent forms and children's certificate

Documents included are:

1. Information sheet for foster carers
2. Information sheet for birth parents
3. Information sheet for children/young people
4. Consent form for foster carers
5. Consent form for birth parents
6. Consent form for children
7. Children's certificate
8. Leaflet advertising the study

Information Sheet

What is it?
The Foster Carers' Training Project is the first research project of its kind to look at whether training of foster carers helps the children in their care. You can take part if you are looking after a child between the ages of five and sixteen years who is likely to be with you for a further year.

What will those who take part do?
Those who agree to take part will either be asked to attend a new training programme, or to continue attending the training which already exists in the area. This is the only way to get a clear answer to the important question of whether or not the new training is useful. If you decide to take part you may or may not directly benefit from the study, but you will be helping us to solve an important question which we hope will help foster carers in the future.

Why?
Experienced foster carers often point out that the children they look after have problems. Often the children are older, and have had serious problems in the past. Many social work departments are starting special training programmes to try to help foster families deal with some of these problems. Unfortunately, no-one is yet sure whether these types of programmes really benefit the foster carers or children they look after.

What is the new training?
The new training focuses on communicating with children about difficult issues and there is plenty of opportunity for carers to discuss their own experiences. The workshops will be run by an experienced social worker and will usually take place over three full days. Travel expenses and childcare facilities will be provided for those attending the new training.

How will we answer the question?
We need to learn from you as foster carers, so we will ask you to fill in questionnaires about the behaviour of the child in your care at the beginning and end of the workshops and then nine months later. This will allow us to see any immediate effects of the training and also whether these effects last. We will also be asking you what you liked/didn't like about the workshops. The project director, who is a doctor specialising in children's problems, will interview each child at the beginning and end of the study to see if the training has any effect on the child's emotional well-being. We will also send a questionnaire to the child's teacher where possible.

If you have any questions please do not hesitate to ask, and you can contact me on

0141 201 9237

If you do not want to take part, this will not affect the care and support you and your family receive. If you do want to take part, please complete the attached consent form.

Information for Parents

What is it?
The Foster Carers' Training Project is the first research project of its kind to look at whether training of foster carers helps the children in their care. Foster carers who agree to take part will either be asked to attend a new training programme, or to continue attending the training which already exists in the area.

Why?
Being placed in a foster family can be a difficult time for any child. Children often find it hard to ask questions or to tell someone if they are upset. Many social work departments are starting special programmes to try to help foster carers and the children they look after. Unfortunately no-one knows if these types of programmes help. This research project aims to find out.

How will we answer the question?
Half of the foster carers who take part will attend an extra training programme, and the other the half will have the same as usual. Before the programme starts and nine months afterwards, I would like to talk with your child about his or her thoughts and feelings. This will give us an idea of how your child is getting on. It is important that we do the nine month interview even if your child is not still in this placement. We will be asking the foster carers to fill in two questionnaires and, with your permission, we would also like to contact your child's teacher to get their view of how your child is getting on. We will ask social workers for some background information about your child and about the foster carers.

Important!

- No-one will lose out on services and foster carers and children in care might actually benefit from the extra training. By allowing your child to take part, you may be helping us to help children looked after by foster carers in the future.

- You do not have to allow your child to take part in the project and if you decide not to, this will in no way affect the care you or your child will receives.

- Please ask your social worker if there is anything about the project which is not clear. Make sure you understand and are happy with everything about the project before you sign the consent form. If there is anything your social worker can't answer, please feel free to contact a member of the research team on:

0141 201 9237

Thank-you for taking the time to read this information sheet.

Information for Children/Young People

This is a checklist to help foster carers and/or social workers explain the Foster Carers Training Project. Please try to make sure that the child understands each part, by explaining it in the way you feel most appropriate, and give them plenty of chance to ask questions.

- **What is it?**

We will be holding special meetings with foster carers where they can learn more about how children in foster care feel and how they can help children in foster care to express themselves more easily. We want to find out whether these meetings help children in foster care. We are asking 200 foster families across Scotland to take part.

- **Why?**

Sometimes it can be hard for children to talk to adults about their feelings. It can help if your foster carers know when you might be feeling upset and help you to talk about it. We want to see if training can make them better at this, and if the children who are fostered feel better as a result.

How your foster carers can help with the project

- Some carers will attend sessions organised by the project. Others will carry on as usual.

- Fill in two questionnaires about you.

The questionnaires are ***confidential***, in other words only the people involved in the study will be allowed to see what your foster carers write.

How you can help with the project

- Helen Minnis, who is running the project, would like to come and visit you at home and ask you some questions about your thoughts and feelings, plus weigh and measure you. She would like to visit you again nine months later to ask you the same questions. Each visit would mean giving up about 45 minutes to an hour of your time.

We want to make sure that children who are in foster care are as happy as possible. We don't yet know if training your foster carers will help you or not, but by taking part in the project you could be helping us to make things better for children looked after by foster carers the future.

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Consent form

- I have read and understood the information sheet and any questions have been answered.
- I understand that I might not benefit directly from taking part in the study.
- I understand that I do not have to take part and that if choose not to, the care and the support that I and my family receive will not be affected in any way.
- I agree to take part in the Foster Carers' Training Project

Name: _____ (please print)

Address: _____

_____

Signature: _____ **Date:** _____

We need to contact the social worker for each child who is taking part as soon as possible so that, if necessary, we can ask the birth parents to give consent.

In order to help us do that, please provide the following information.

Name of your linkworker: _____ **Area Office:** _____

Name of child: _____ **Child's age:** _____

Name of social worker: _____ **Phone no.:** _____

Area Office of social worker: _____

If you have more than one child, please provide information about them in the space below.

Name of child: _____ **Child's age:** _____

Name of social worker: _____ **Phone no.:** _____

Area Office of social worker: _____

Name of child: _____ **Child's age:** _____

Name of social worker: _____ **Phone no.:** _____

Area Office of social worker: _____

The Foster Carers Training Project

Consent Form

- **I have read and understood the information sheet and any questions have been answered.**

- **I understand that I do not have to allow my child to take part and that if I choose not to, the care and the support that I and my family receive will not be affected in any way.**

- **I am willing for my child's teacher to be contacted: Yes No (please tick)**

- **I am willing for my child to take part in the Foster Carers Training Project**

Name of child_____

Signed_____(parent/guardian)

Date_____

My name is_____

I live at_____

I live with_____
(name of foster carers)

The foster carers training project has been explained to me by_____

I am happy for Helen Minnis to interview me Yes
(please circle)
No

I am happy for Helen Minnis to weigh and measure me
(please circle) Yes

No

Signed _____
(child)

_____
(foster carer)

Certificate given to child after home visit at time 0

Leaflet used to advertise the study

IS YOUR CHILD IN FOSTER CARE? ARE YOU A FOSTER CARER?

Foster carers are crucial for children in care. Amazingly, we don't yet know what kind of training best prepares them to care for the children they look after. If you think this is an important issue, you may be able to help us by taking part in the Foster Carers' Training Project which will be coming to your area soon. You may be contacted by Dr.Helen Minnis, coordinator of the project, over the next few months.

We would value your participation

FCTP The Foster Carers' Training Project

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